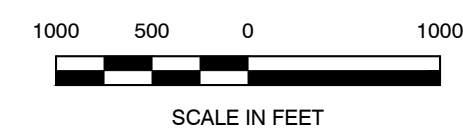


TOWN OF JOHNSTOWN JOHNSTOWN RESERVOIR REPAIR WELD COUNTY, COLORADO WATER DIVISION 1, WATER DISTRICT 4 DAM ID - 040132

GENERAL NOTES:

1. THESE CONSTRUCTION PLANS ARE TO BE USED IN CONJUNCTION WITH THE TECHNICAL SPECIFICATIONS PREPARED BY J&T CONSULTING, INC., AND GEOTECHNICAL INVESTIGATION AND ENGINEERING DESIGN RECOMMENDATIONS PREPARED BY Cesare, INC.
2. COMPLY WITH ALL REQUIREMENTS OF OWNER OBTAINED PROJECT PERMITS; INCLUDING, BUT NOT LIMITED TO, PERMITS FROM THE U.S. ARMY CORPS OF ENGINEERS AND COLORADO DEPARTMENT OF HEALTH AND ENVIRONMENT. CONTRACTOR SHALL OBTAIN ALL OTHER PERMITS NECESSARY FOR CONSTRUCTION OF THE WORK.
3. PROTECT ALL EXISTING WETLANDS.
4. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION AND SEDIMENT CONTROL MEASURES AT ALL TIMES DURING CONSTRUCTION.
5. ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH THE STATE OF COLORADO PERMITTING PROCESS FOR "STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY." FOR INFORMATION, PLEASE CONTACT THE COLORADO DEPARTMENT OF HEALTH, WATER QUALITY CONTROL DIVISION, 4300 CHERRY DRIVE SOUTH, DENVER, COLORADO 80246-1530. ATTENTION: PERMITS SECTION. PHONE 303-692-3500.
6. IF DEWATERING IS REQUIRED, A STATE CONSTRUCTION DEWATERING DISCHARGE PERMIT IS REQUIRED FOR DISCHARGES TO A STORM SEWER, CHANNEL, IRRIGATION DITCH, ANY STREET THAT IS TRIBUTARY TO THE FOREMENTIONED FACILITIES, OR ANY WATER OF THE UNITED STATES.
7. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL UTILITIES TO COORDINATE SCHEDULES.
8. THE CONTRACTOR SHALL REGULARLY PATROL THE PUBLIC LANDS ADJACENT TO THE PROJECT, REMOVE CONSTRUCTION DEBRIS AND KEEP AREAS CLEAN AND SAFE.
9. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AND IMPLEMENTING A SEQUENCE AND SCHEDULE FOR COMPLETION OF THE WORK IN ACCORDANCE WITH APPLICABLE PROVISIONS OF THE CONTRACT DOCUMENTS.
10. READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS RELATED WORK PRIOR TO CONSTRUCTION.
11. VERIFY SITE ELEVATIONS PRIOR TO CONSTRUCTION.
12. THE CONTRACTOR SHALL PROCURE ALL PERMITS AND LICENSES, PAY ALL CHARGES AND FEES INCLUDING, BUT NOT LIMITED TO, ALL INSPECTION CHARGES OF AGENCIES HAVING APPROPRIATE JURISDICTION.
13. CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS OF ENTIRE PROJECT, AS SPECIFIED, UPON FINAL COMPLETION OF PROJECT.



VICINITY MAP
SCALE 1" = 1000'



OWNER

TOWN OF JOHNSTOWN
450 S. Parish Avenue
JOHNSTOWN, CO 80534
970-587-4664

ENGINEER

J&T Consulting, Inc.
J.C. York
305 Denver Ave., Ste. D
Fort Lupton, CO 80621
303-857-6222
Fax: 303-857-6224

SURVEYOR

American West Land Surveying Co.
331 South 4th Avenue
P.O. Box 129
Brighton, CO 80601
303-659-1532

GEOTECHNICAL/SOIL INVESTIGATIONS

CESARE, INC.
7108 SOUTH ALTON WAY, BLDG. B
CENTENNIAL, CO 80112
303-220-0300



SEE SHEET INDEX - SHEET 2

APPROVAL:

Approved on the ___ day of _____, 20__.

State Engineer

By: _____
William McCormick III, P.E.
Chief, Colorado Dam Safety
CO P.E. #29127

CERTIFICATION:

I hereby certify these plans for the Johnstown Reservoir Repair were prepared by me or under my direct supervision for the owner, The Town of Johnstown.

James C. York, P.E.
Colorado Registration No. 36846

I hereby certify these plans for the Johnstown Reservoir Repair represent the PRELIMINARY conditions to the best of our knowledge and judgement, based in part on information furnished by others as of ___ day of _____, 20__.

James C. York, P.E.
Colorado Registration No. 36846

REVISIONS

No.	Date	By	Chk	Description

ISSUED FOR BID

Job #	20225
Date	7.1.21
Drawn By	KJS
Designed By	KJS
Checked By	JCY
File	Johnstown Res Cover
Scale	As Shown

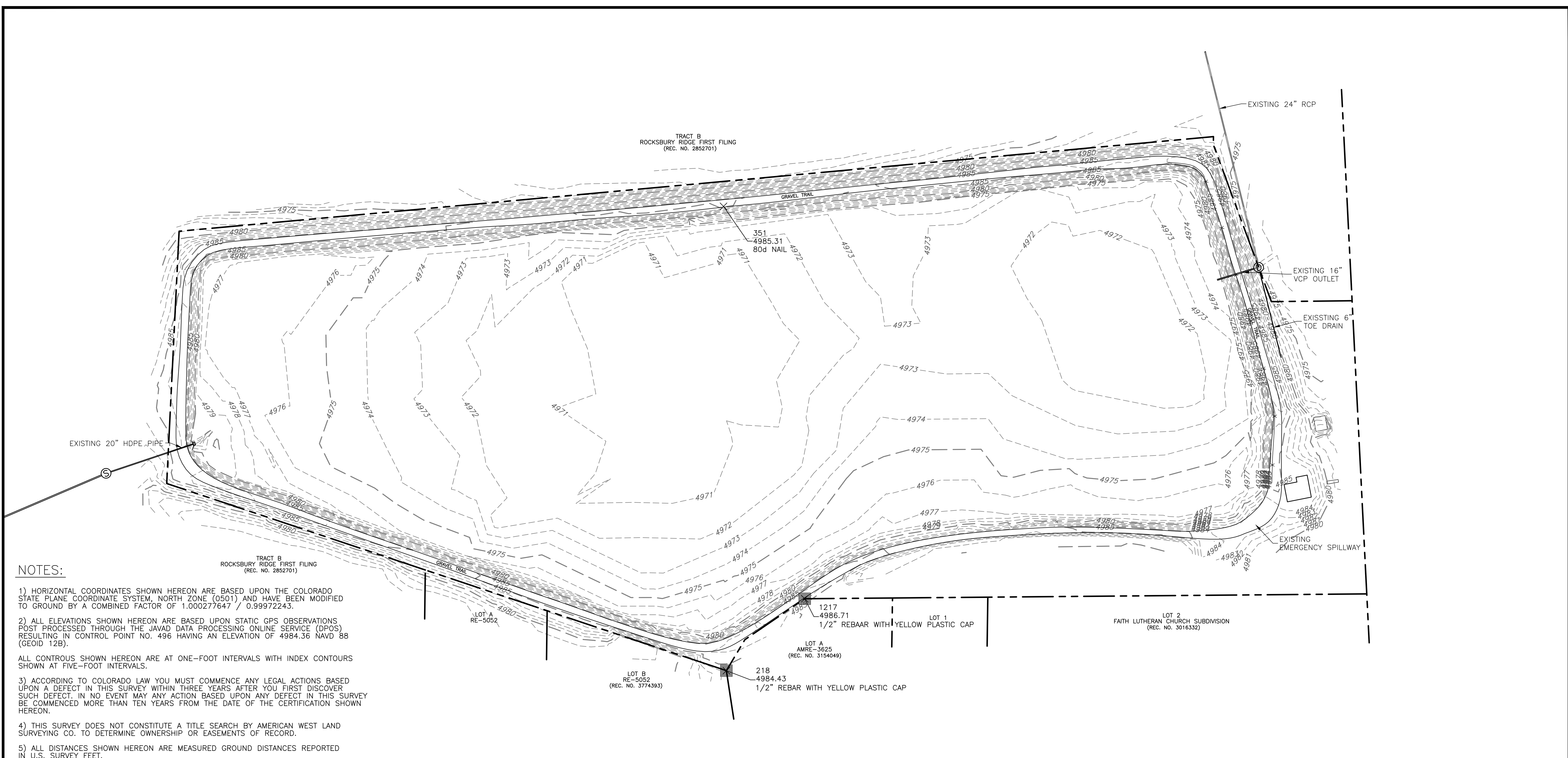
Sheet: **1** of **15**

P:\0225\johnstown reservoir repair\Drawings\plgs sheets\01-JT-JohnstownReservoir Cover.dwg, 1 Cover Sheet, 7/1/2021 11:24:58 AM

REVISIONS	
No.	Description

Job #	20225
Date	7.1.21
Drawn By	KJS
Designed By	KJS
Checked By	JCY
File	JT-Johnstown Reservoir
Scale	As Shown
Sheet: 2	of: 15

ISSUED FOR BID



NOTES:

- 1) HORIZONTAL COORDINATES SHOWN HEREON ARE BASED UPON THE COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (0501) AND HAVE BEEN MODIFIED TO GROUND BY A COMBINED FACTOR OF 1.000277647 / 0.99972243.
- 2) ALL ELEVATIONS SHOWN HEREON ARE BASED UPON STATIC GPS OBSERVATIONS POST PROCESSED THROUGH THE JAVAD DATA PROCESSING ONLINE SERVICE (DPOS) RESULTING IN CONTROL POINT NO. 496 HAVING AN ELEVATION OF 4984.36 NAVD 88 (GEOID 12B).
- 3) ALL CONTOURS SHOWN HEREON ARE AT ONE-FOOT INTERVALS WITH INDEX CONTOURS SHOWN AT FIVE-FOOT INTERVALS.
- 4) ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTIONS BASED UPON A DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.
- 5) THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY AMERICAN WEST LAND SURVEYING CO. TO DETERMINE OWNERSHIP OR EASEMENTS OF RECORD.
- 6) ALL DISTANCES SHOWN HEREON ARE MEASURED GROUND DISTANCES REPORTED IN U.S. SURVEY FEET.

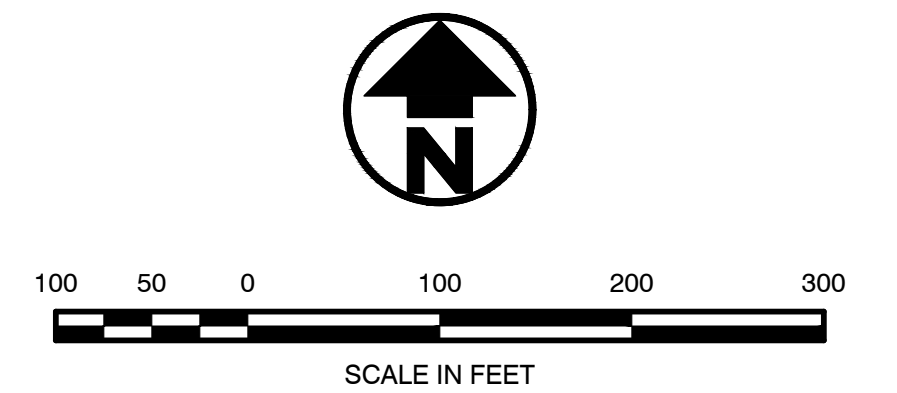
PROJECT CONTROL POINT #	NORTHINGS	EASTING	ELEVATION	DESCRIPTION
218	1368217.18	3150535.04	4984.43	1/2" REBAR WITH YELLOW PLASTIC CAP, PLS 12374
351	1367166.30	3150529.22	4985.31	80d NAIL
1217	1366364.21	3150695.16	4986.71	1/2" REBAR WITH YELLOW PLASTIC CAP, PLS 12374

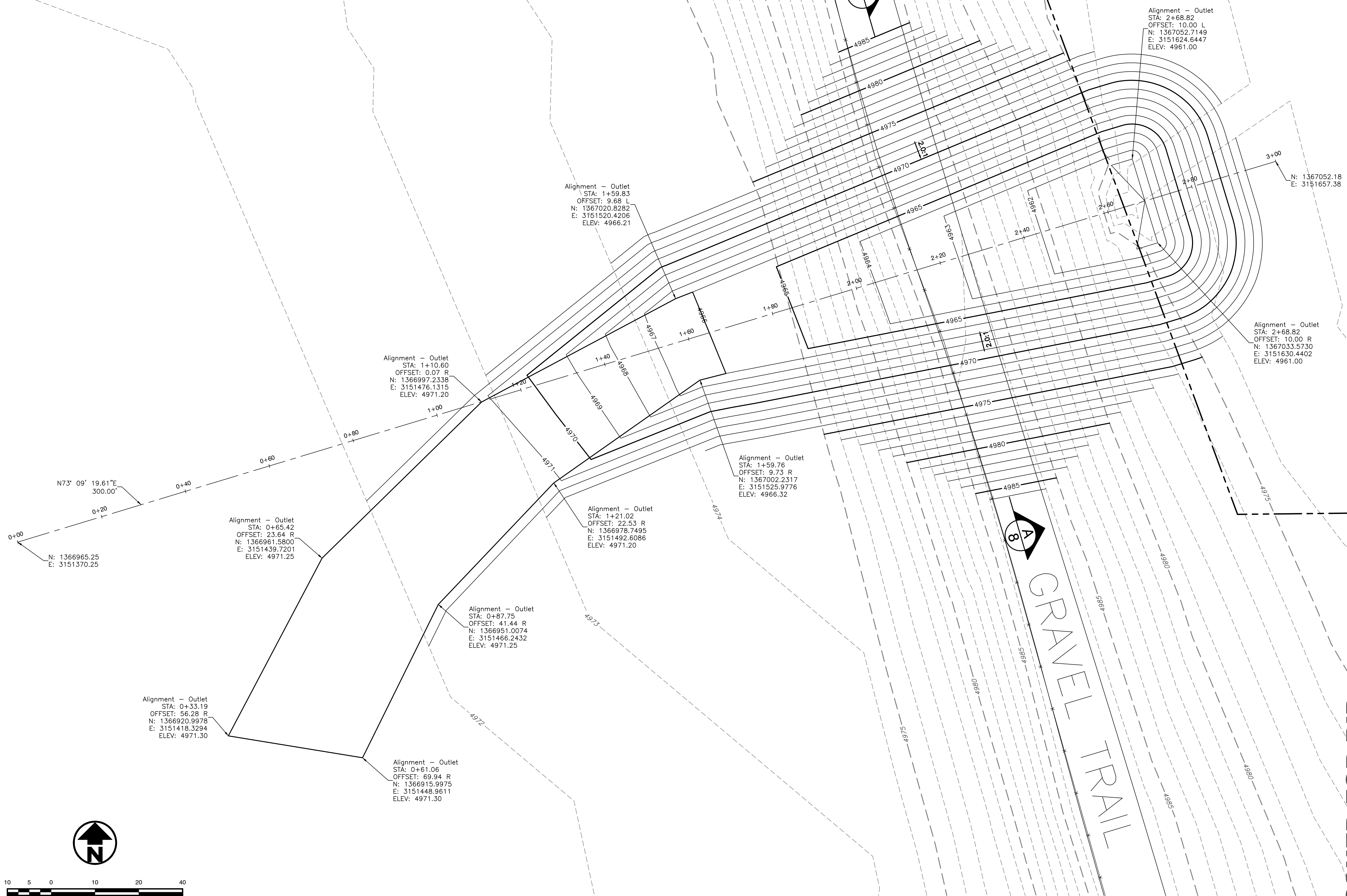
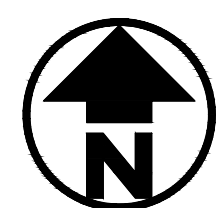
SHEET INDEX

1	Cover Sheet
2	Existing Conditions Plan
3	Excavation Plan
4	Grading & Erosion Control Plan
5	Emergency Spillway Plan
6	Emergency Spillway Details
7	Outlet Plan and Profile
8	Excavation & Pipe Encasement Details
9	Toe Drain Plan and Profile
10	Toe Drain Details
11-13	Outlet Tower Details
14-15	Bridge Details

LEGEND:

PROPERTY LINE
FENCE LINE
DIRT ROAD
EXISTING CONTOURS
PROPOSED CONTOURS
SILT FENCE





REVISIONS

No.	Date	By	Chk	Description

Job # 20225
Date 7.1.21
Drawn By KJS
Designed By KJS
Checked By JCY
File JT-Johnstown Reservoir
Scale As Shown
Sheet: 3 of 15

ISSUED FOR BID

Filing No. C-0625A

J&T Consulting, Inc.
305 Denver Avenue - Suite D
Fort Lupton, CO 80621
Ph: 303-857-6222 Fax: 303-857-6224
www.jtconsulting.com

Johnstown Reservoir Repair

Town Of Johnstown

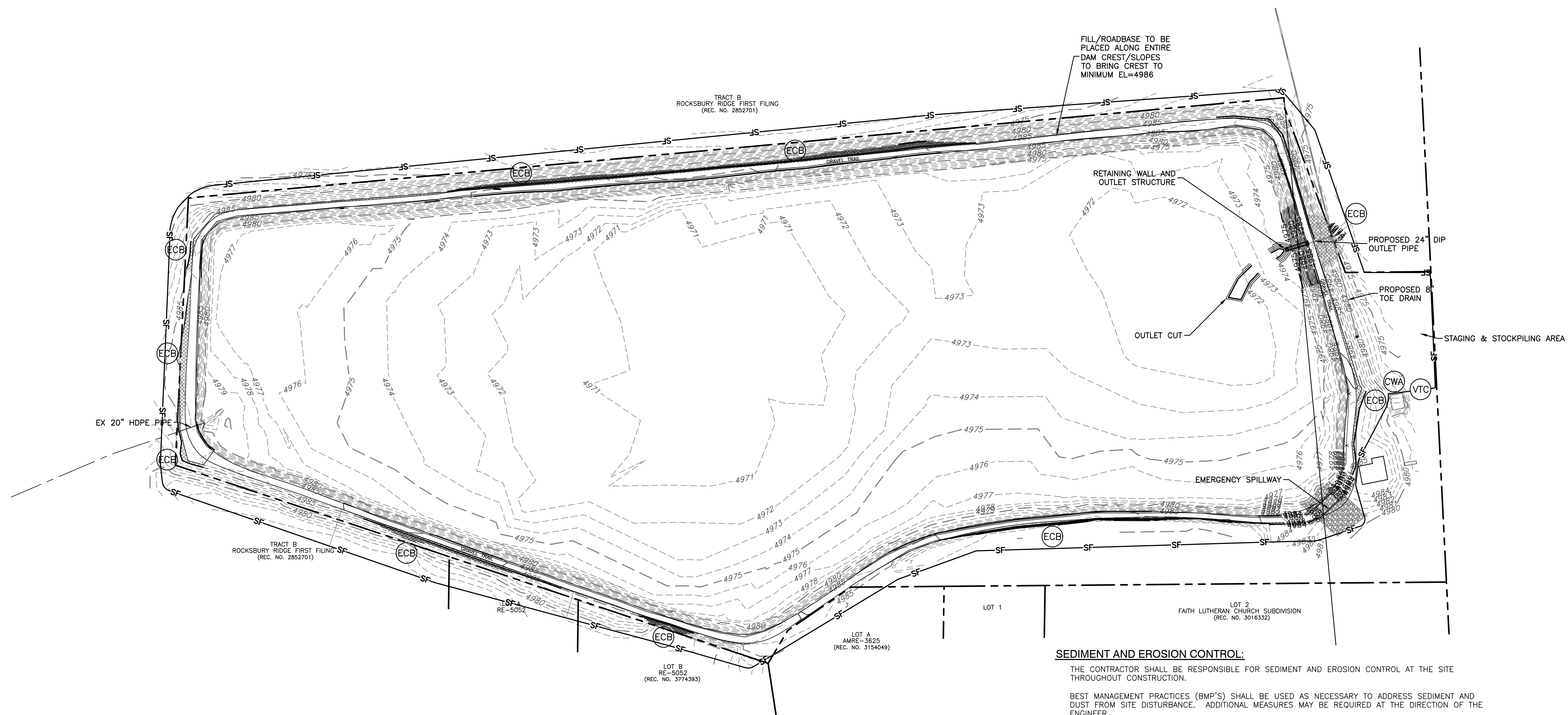
Excavation Plan

REVISIONS		
No.	Date	Description

Job #	20225
Date	7.1.21
Drawn By	KJS
Designed By	KJS
Checked By	JCY
File	JT-Johnstown Reservoir
Scale	As Shown
Sheet:	Of:
4	15

ISSUED FOR BID

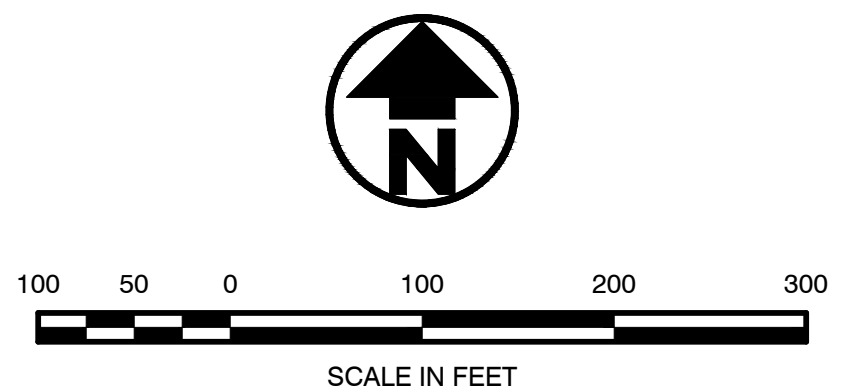
Filing No. C-0625A



SEDIMENT AND EROSION CONTROL:
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEDIMENT AND EROSION CONTROL AT THE SITE THROUGHOUT CONSTRUCTION.
 BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE USED AS NECESSARY TO ADDRESS SEDIMENT AND DUST FROM SITE DISTURBANCE. ADDITIONAL MEASURES MAY BE REQUIRED AT THE DIRECTION OF THE ENGINEER.
 BMP'S MAY INCLUDE, BUT ARE NOT LIMITED TO:
 MINIMAL DISTURBANCE FOR MINIMAL TIME PERIODS
 GRAVEL CONSTRUCTION ENTRIES
 SILT FENCE, STRAW BALE OR SAND BAG BARRIERS, ROCK CHECK DAMS
 STORM SEWER INLET PROTECTION
 SEDIMENT CAPTURE PONDS
 SITE WATERING FOR DUST SUPPRESSION
 BMP'S SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL INSPECT BMP'S WEEKLY AND AFTER SIGNIFICANT (GREATER THAN 0.1" PRECIPITATION) STORM EVENTS. THE MAINTENANCE AND REPAIR SHALL BE COMPLETED IN A TIMELY MANNER. SEDIMENT AND DEBRIS SHALL BE REMOVED WHEN THEY REACH HALF THE BMP HEIGHT OR IMPACT THE FUNCTION OF THE BMP.
 SOIL STOCKPILES SHALL BE PROTECTED FROM SEDIMENT TRANSPORT BY SURFACE ROUGHENING, WATERING AND PERIMETER SILT FENCING. SOILS THAT WILL BE STOCKPILED FOR MORE THAN 30 DAYS SHALL BE MULCHED AND SEEDED WITH A GRASS COVER WITHIN 14 DAYS OF STOCKPILE CONSTRUCTION.
 THE CONTRACTOR SHALL INSURE THAT ALL LOADS OF CUT AND FILL SOILS IMPORTED TO OR EXPORTED FROM THE SITE ARE PROPERLY LOADED AND COVERED TO PREVENT LOSS DURING TRANSPORT.
 THE CONTRACTOR SHALL REMOVE ALL SEDIMENT, MUD, AND CONSTRUCTION DEBRIS RESULTING FROM THIS PROJECT FROM FLOWLINES AND PAVEMENT OF PUBLIC STREETS IN A TIMELY MANNER.
 SOILS EXPOSED DURING LAND DISTURBING ACTIVITY SHALL BE KEPT IN A ROUGHENED CONDITION BY RIPPING OR DISCING ALONG LAND CONTOURS UNTIL MULCH, VEGETATION OR OTHER PERMANENT EROSION CONTROL IS IN PLACE. NO SOILS SHALL REMAIN EXPOSED BY LAND DISTURBING ACTIVITY FOR MORE THAN THIRTY (30) DAYS BEFORE REQUIRED TEMPORARY OR PERMANENT EROSION CONTROL IS INSTALLED UNLESS OTHERWISE APPROVED.
 ALL TEMPORARY SEDIMENT CONTROLS WILL BE REMOVED WITHIN 30 DAYS AFTER THE FINAL STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, WHICHEVER OCCURS FIRST.
 NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHENEVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS AND FOR THE SHORTEST PRACTICAL PERIOD OF TIME.

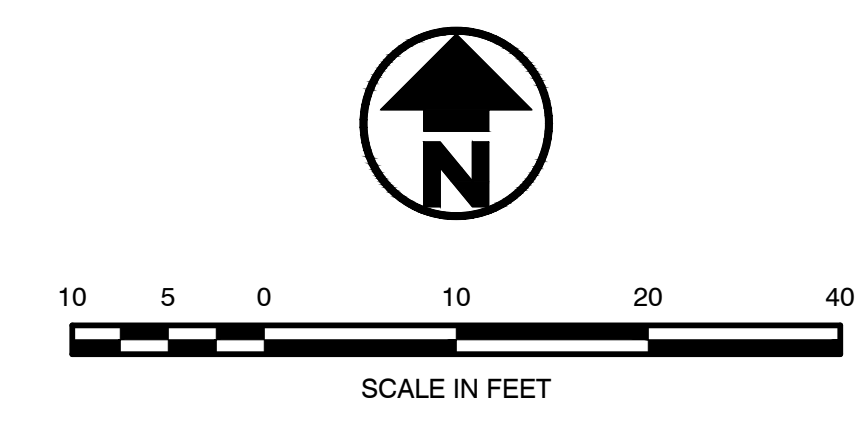
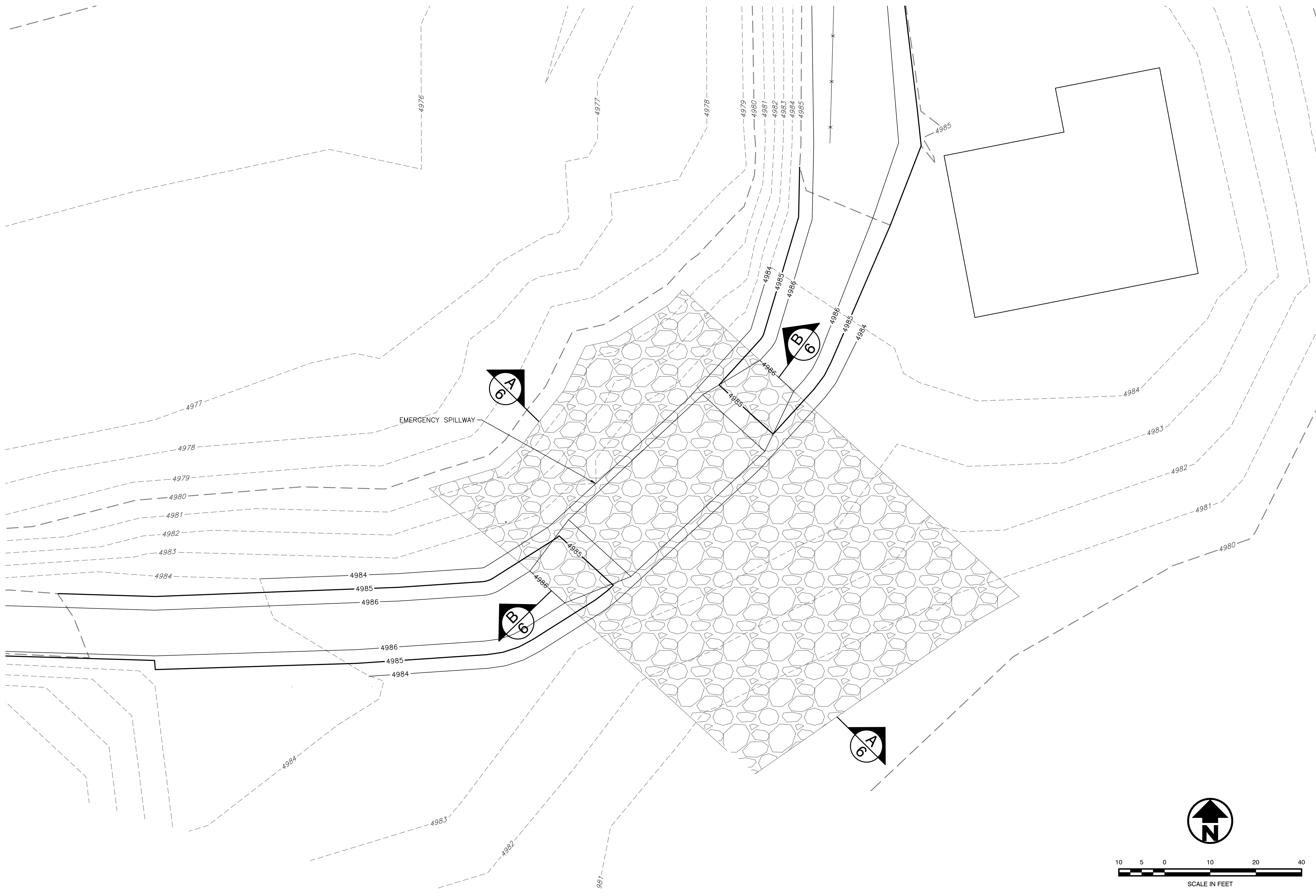
LEGEND:

- PROPERTY LINE
- FENCE LINE
- DIRT ROAD
- EXISTING CONTOURS
- PROPOSED CONTOURS
- SILT FENCE
- EROSION CONTROL BLANKET
- VEHICLE TRACKING CONTROL
- PORTABLE CONCRETE WASHOUT AREA



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P:\2025\johnstown reservoir repair\Drawings\JOHNSTOWN RESERVOIR_Bridge.dwg, Emergency Spillway Plan, 7/1/2021 11:25:18 AM



J&T Consulting, Inc.
 305 Denver Avenue - Suite D
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 Ph: 303-857-6222 Fax: 303-857-6224
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Johnstown Reservoir Repair
 Emergency Spillway Plan

Town Of Johnstown

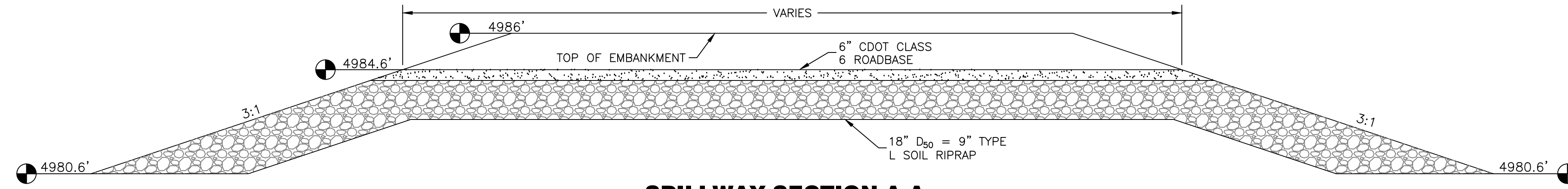
REVISIONS

No	Date	By	Chk	Description

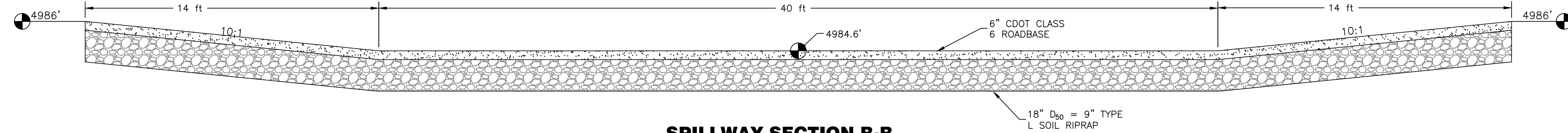
ISSUED FOR BID

Job # 20225
 Date 7.1.21
 Drawn By KJS
 Designed By KJS
 Checked By JCY
 File JT-Johnstown Reservoir
 Scale As Shown
 Sheet: 5 of 15

Filing No. C-0625A



SPILLWAY SECTION A-A
NOT TO SCALE



SPILLWAY SECTION B-B
NOT TO SCALE

RIPRAP DESIGNATION	% SMALLER THAN GIVEN SIZE BY WEIGHT	INTERMEDIATE ROCK DIMENSION (INCHES)	D ₅₀ * (INCHES)
TYPE L	70-100	15	9
	50-70	12	
	35-50	9	
	2-10	3	

REVISIONS

No	Date	By	Chk	Description

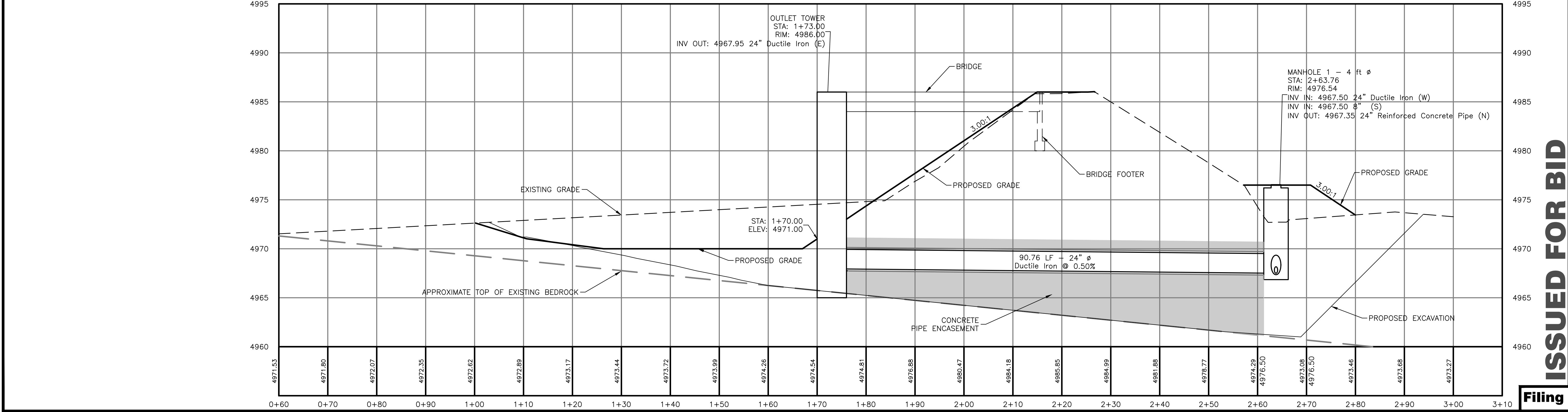
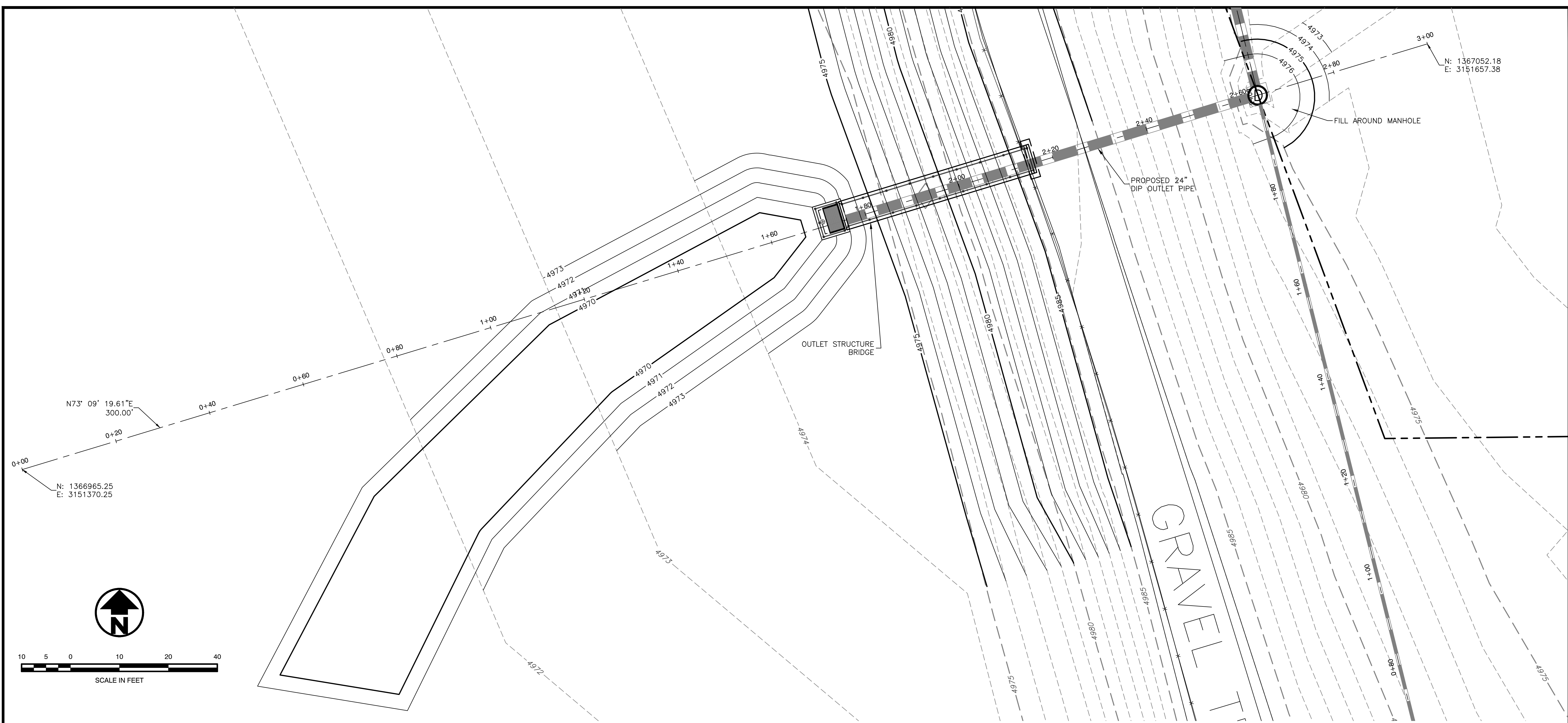
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Date 7.1.21
Drawn By KJS
Designed By KJS
Checked By JCY
File JT-Johnstown Details
Scale Not to Scale

Sheet: **6** of 15

ISSUED FOR BID

Filing No. C-0625A

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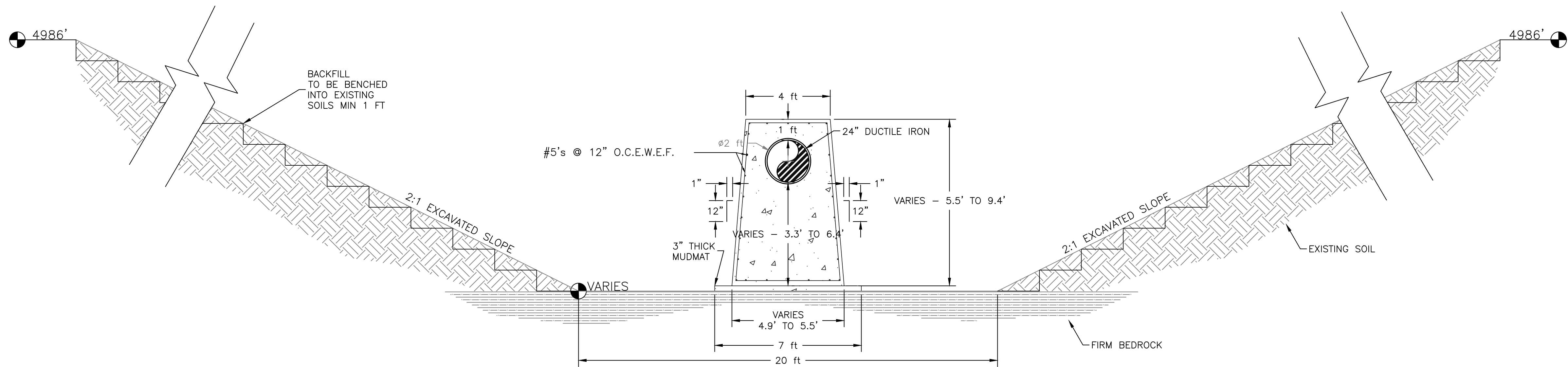
REVISIONS

No.	Date	By	Chk	Description

ISSUED FOR BID

Job #	20225
Date	7.1.21
Drawn By	KJS
Designed By	KJS
Checked By	JCY
File	JT-Johnstown Reservoir
Scale	As Shown
Sheet:	Of:
7	15

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EXCAVATION SECTION A-A
NOT TO SCALE

REVISIONS

No.	Date	By	Chk	Description

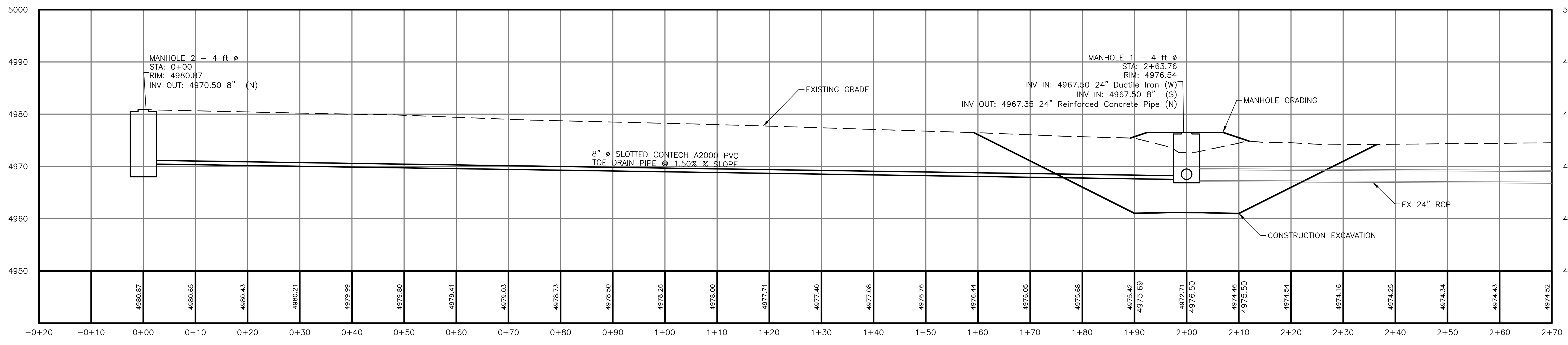
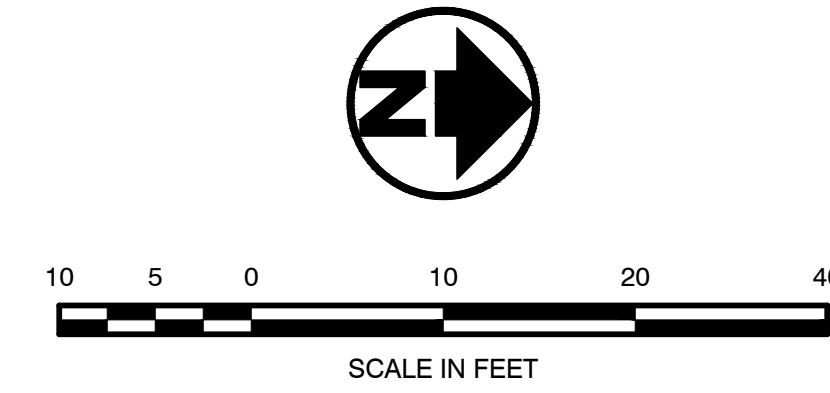
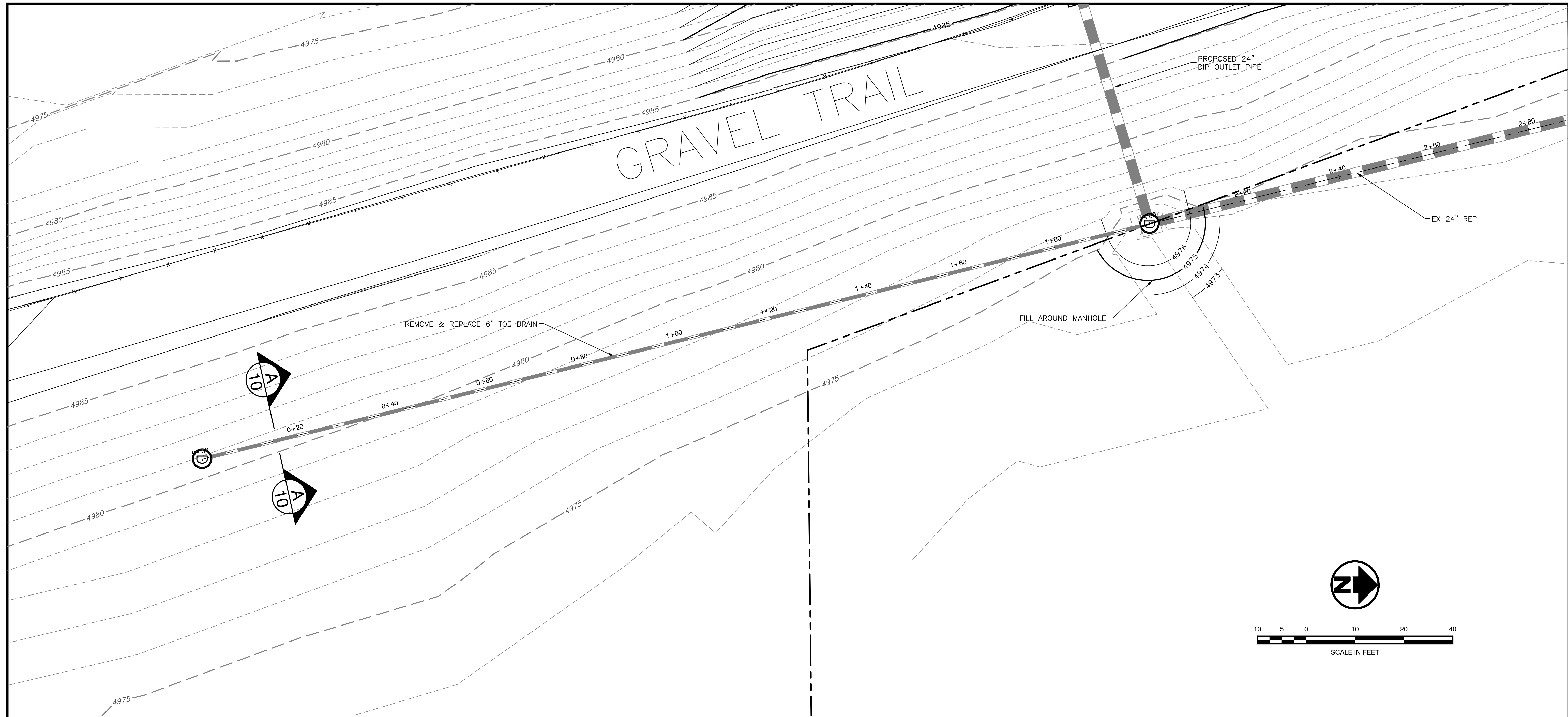
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Date 7.1.21
Drawn By KJS
Designed By KJS
Checked By JCY
File JT-Johnstown Details
Scale Not to Scale

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ISSUED FOR BID

Filing No. C-0625A

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No.	Date	By	Chk	Description

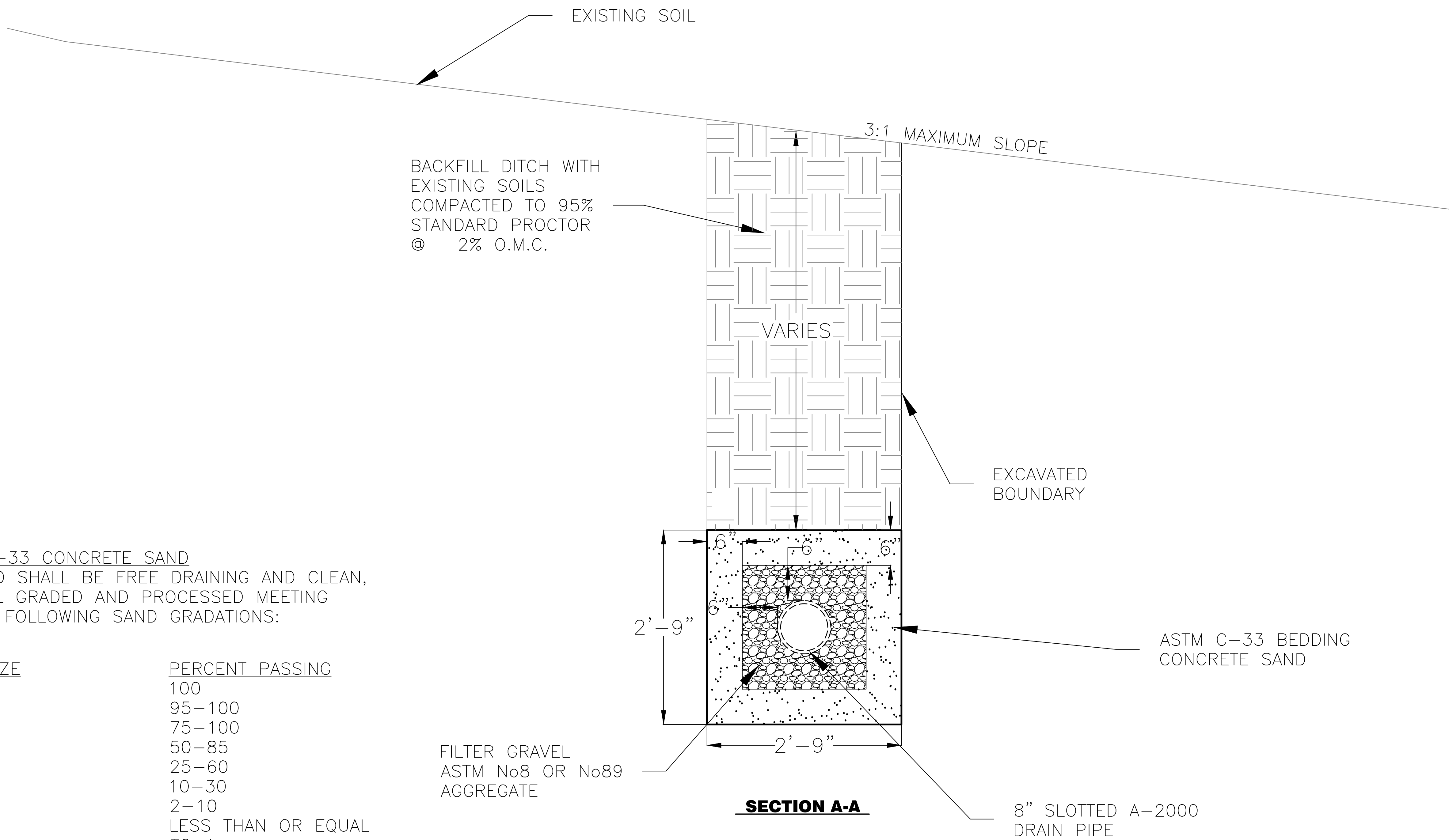
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Date	7.1.21
Drawn By	KJS
Designed By	KJS
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File	JT-Johnstown Reservoir
Scale	As Shown
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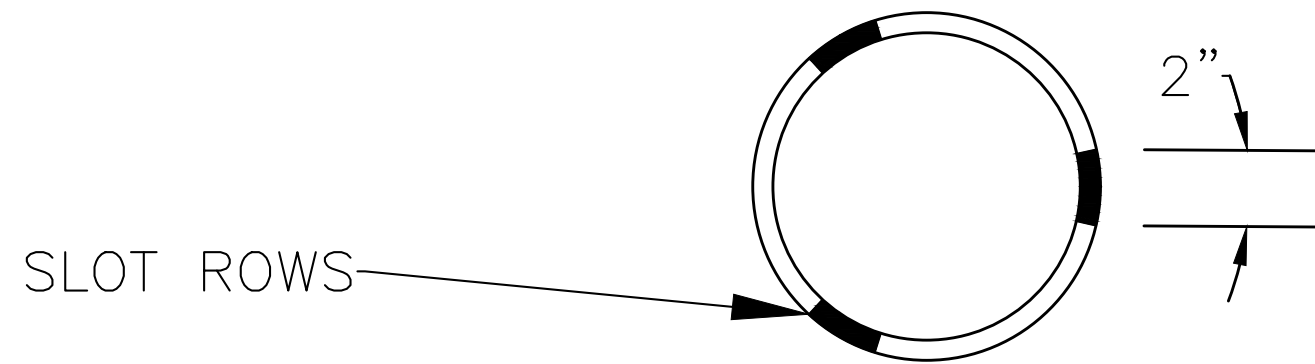
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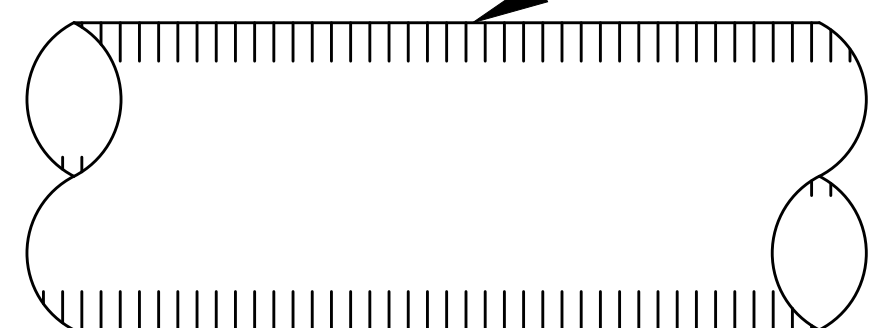
Filing No. C-0625A



A-2000 PIPE DETAIL



SLOT WIDTH = 0.02"
 SPACED @ 1/2" SPACING



ASTM C-33 CONCRETE SAND

1. SAND SHALL BE FREE DRAINING AND CLEAN, WELL GRADED AND PROCESSED MEETING THE FOLLOWING SAND GRADATIONS:

SIEVE SIZE	PERCENT PASSING
3/8"	100
NO. 4	95-100
NO. 8	75-100
NO. 16	50-85
NO. 30	25-60
NO. 50	10-30
NO. 100	2-10
NO.200	LESS THAN OR EQUAL TO 4

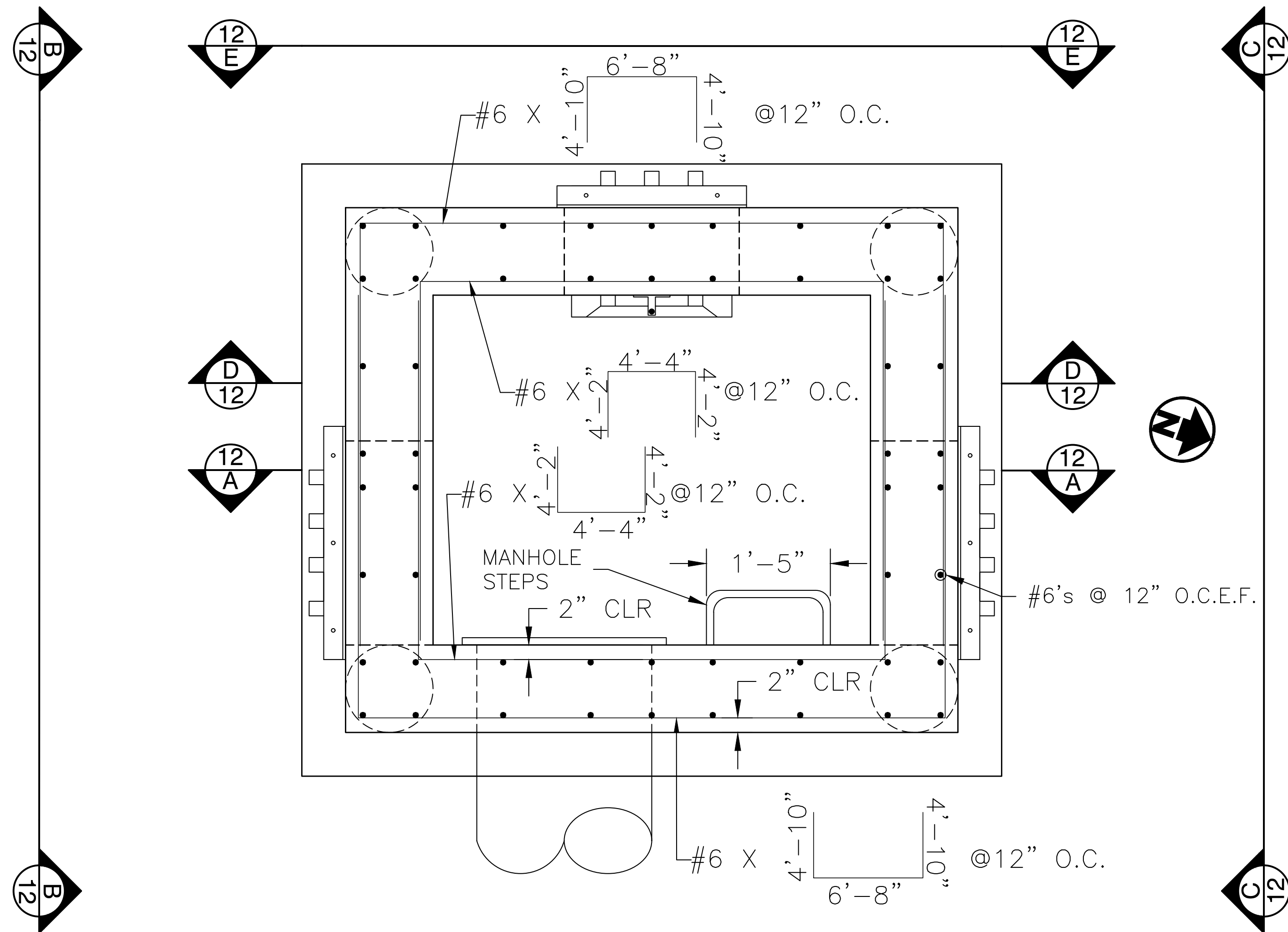
CONCRETE SAND SHALL BE COMPACTED WITH 4 PASSES OF A VIBRATING PLATE COMPACTOR. SAND SHALL BE PLACED IN TWO LIFTS NO THICKER THAN 12" PER LIFT.

DRAIN PIPE SPECIFICATIONS

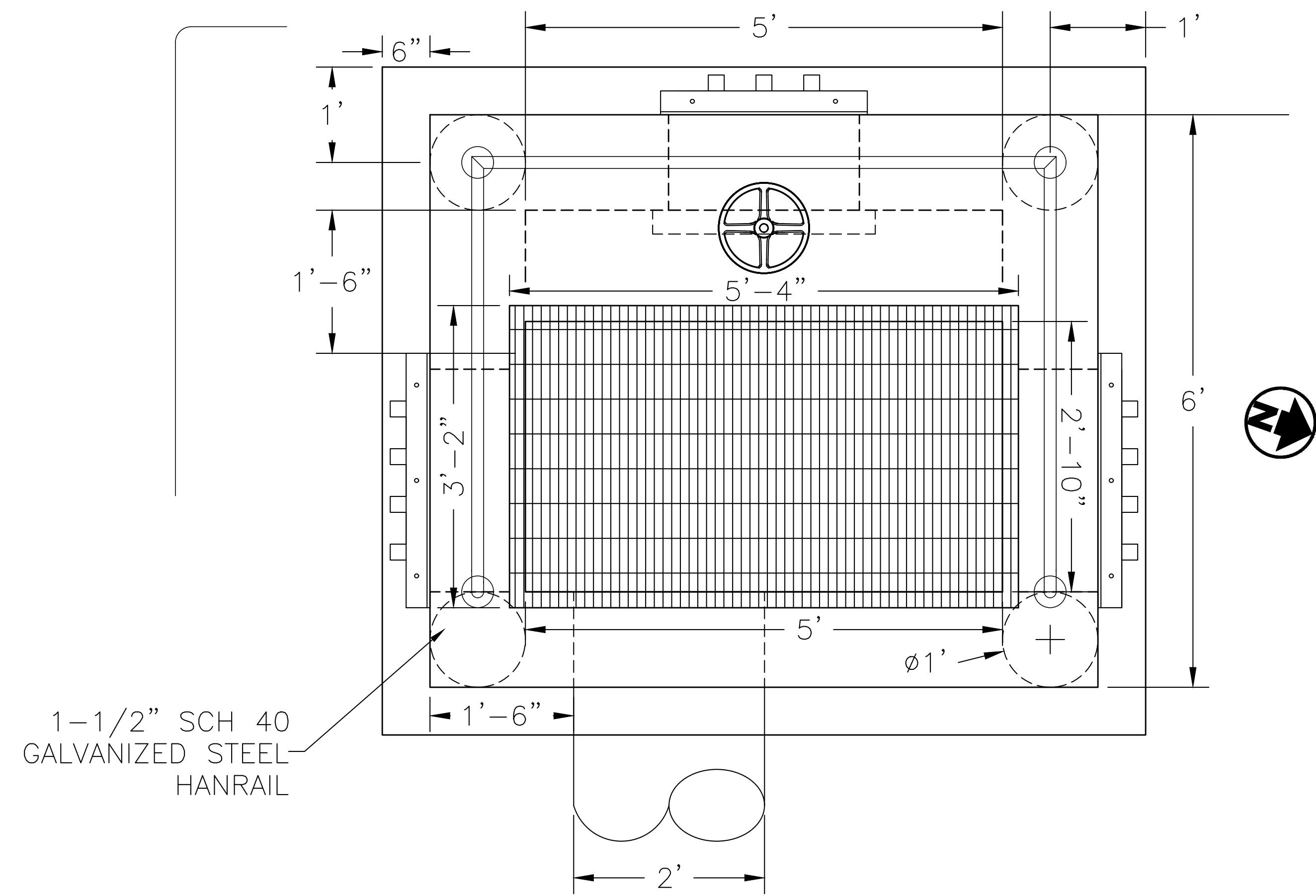
- PIPE SHALL BE A-2000 WITH GASKETED WATER TIGHT JOINT (OR APPROVED EQUAL).
- PIPE SHALL BE SLOTTED AS FOLLOWS:
 - THREE ROWS OF SLOTS
 - SLOT WIDTH OF 0.02 INCHES
 - SLOT LENGTH - 2"
 - SLOT SPACING = 0.5"
- PIPE SHALL BE INSTALLED PER MANUFACTURES RECOMMENATIONS.

BACKFILL DITCH NOTES

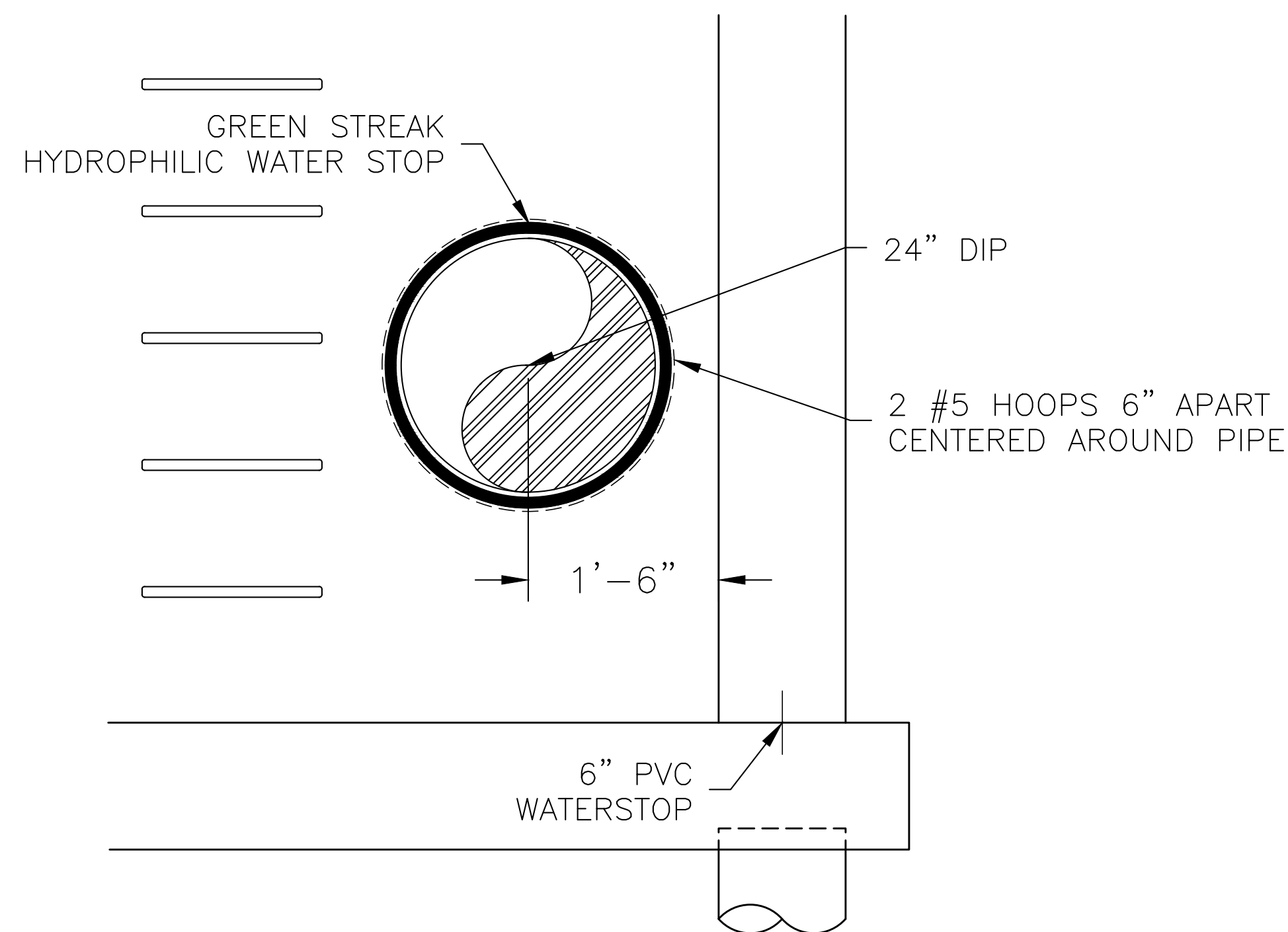
- CONTRACTOR TO BACKFILL EXISTING DITCH AT DOWNSTREAM TOE OF DAM WITH POSITIVE GRADE AWAY FROM TOE.



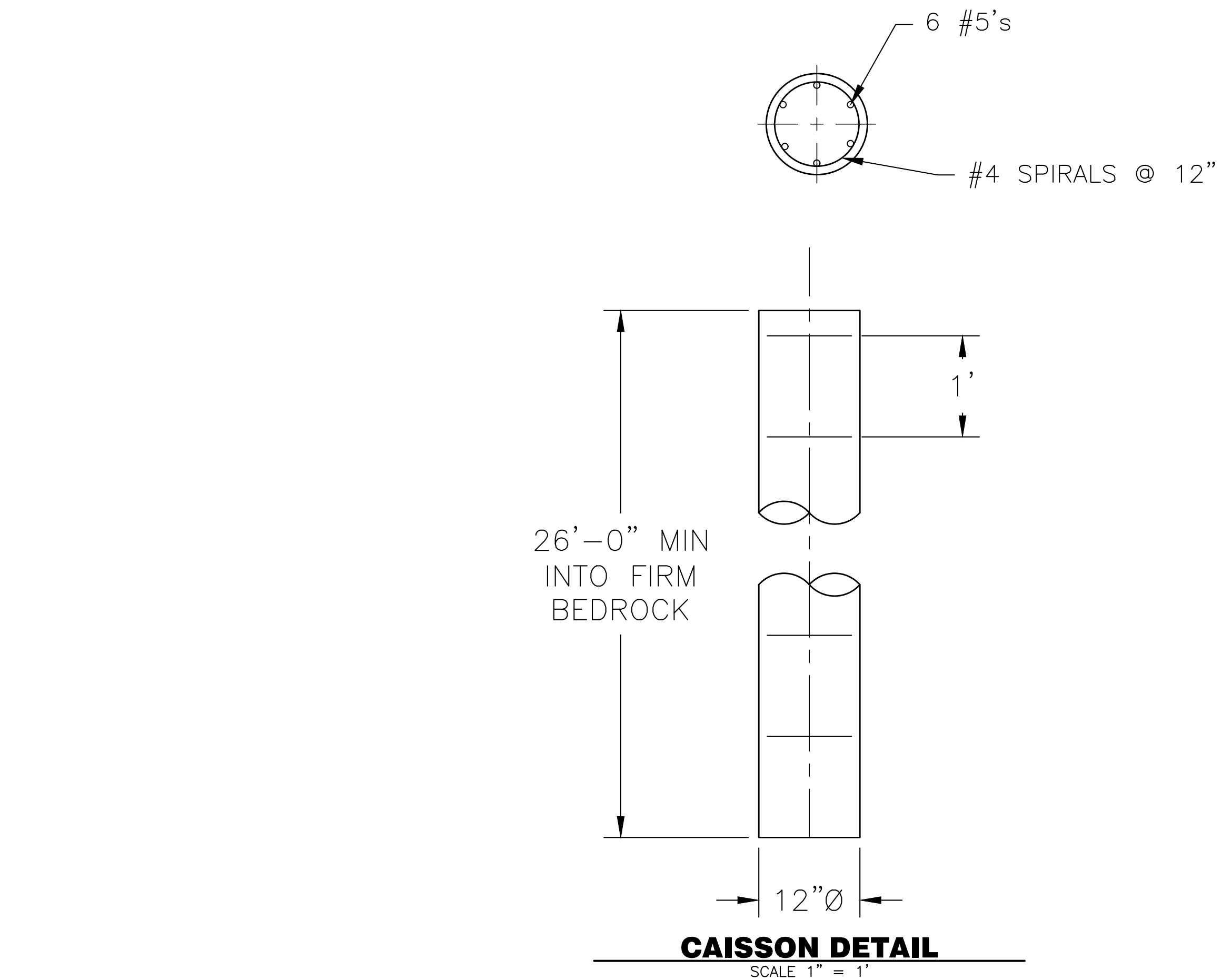
SECTION F-F
SCALE 1" = 1'



OUTLET STRUCTURE PLAN VIEW
SCALE 1" = 1'



OUTLET PIPE DETAIL
SCALE 1" = 1'

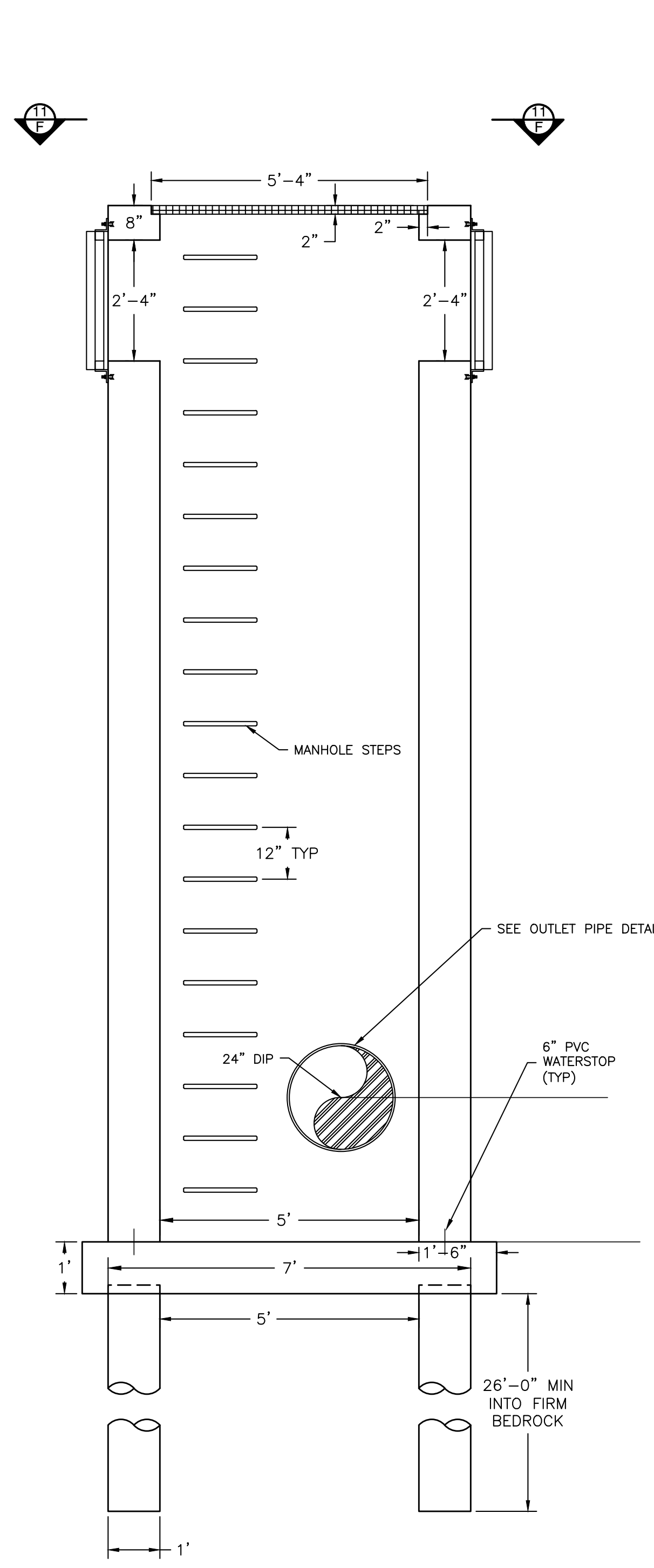


CAISSON DETAIL
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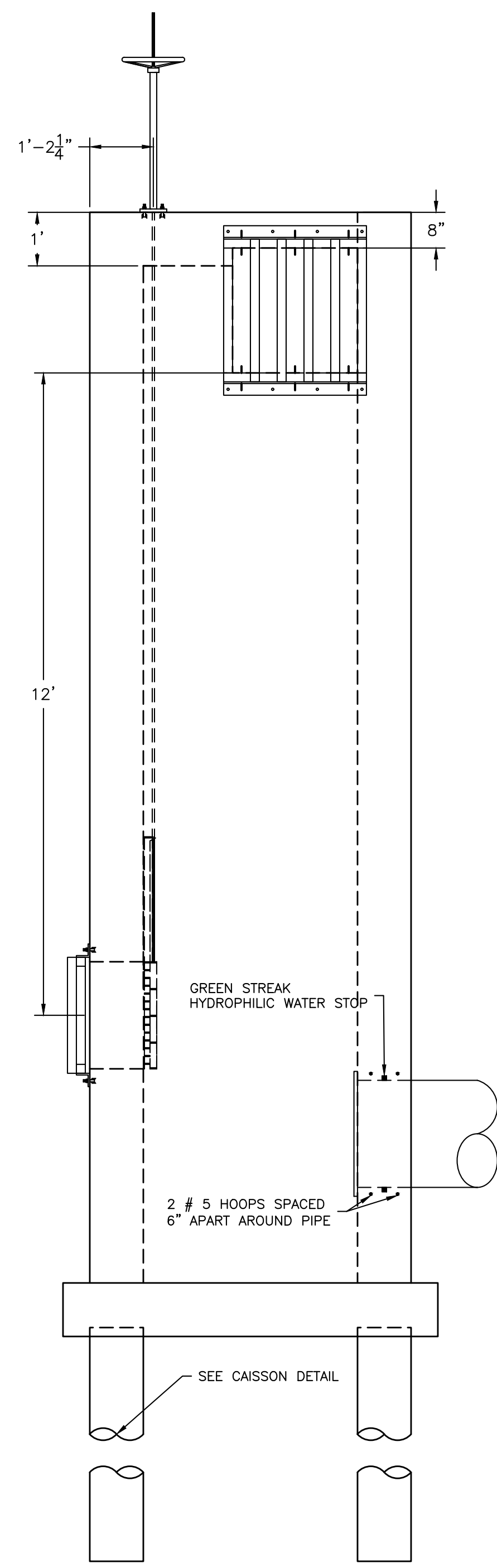
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Job #	20225
Date	7.1.21
Drawn By	KJS
Designed By	KJS
Checked By	JCY
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Sheet:	Of:

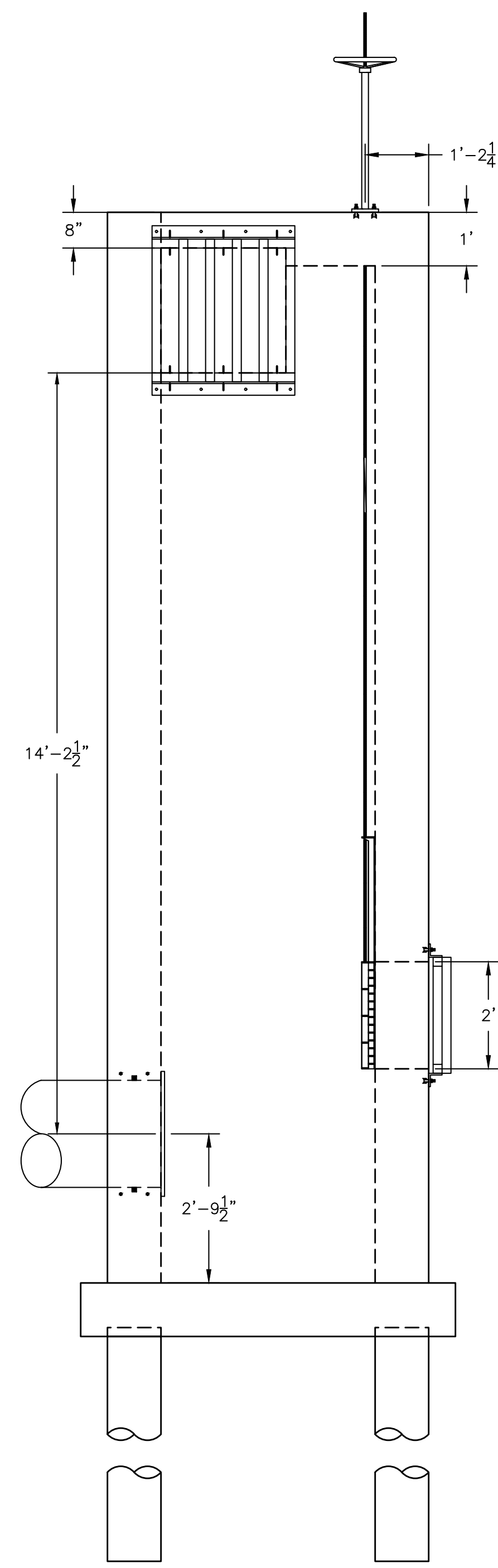
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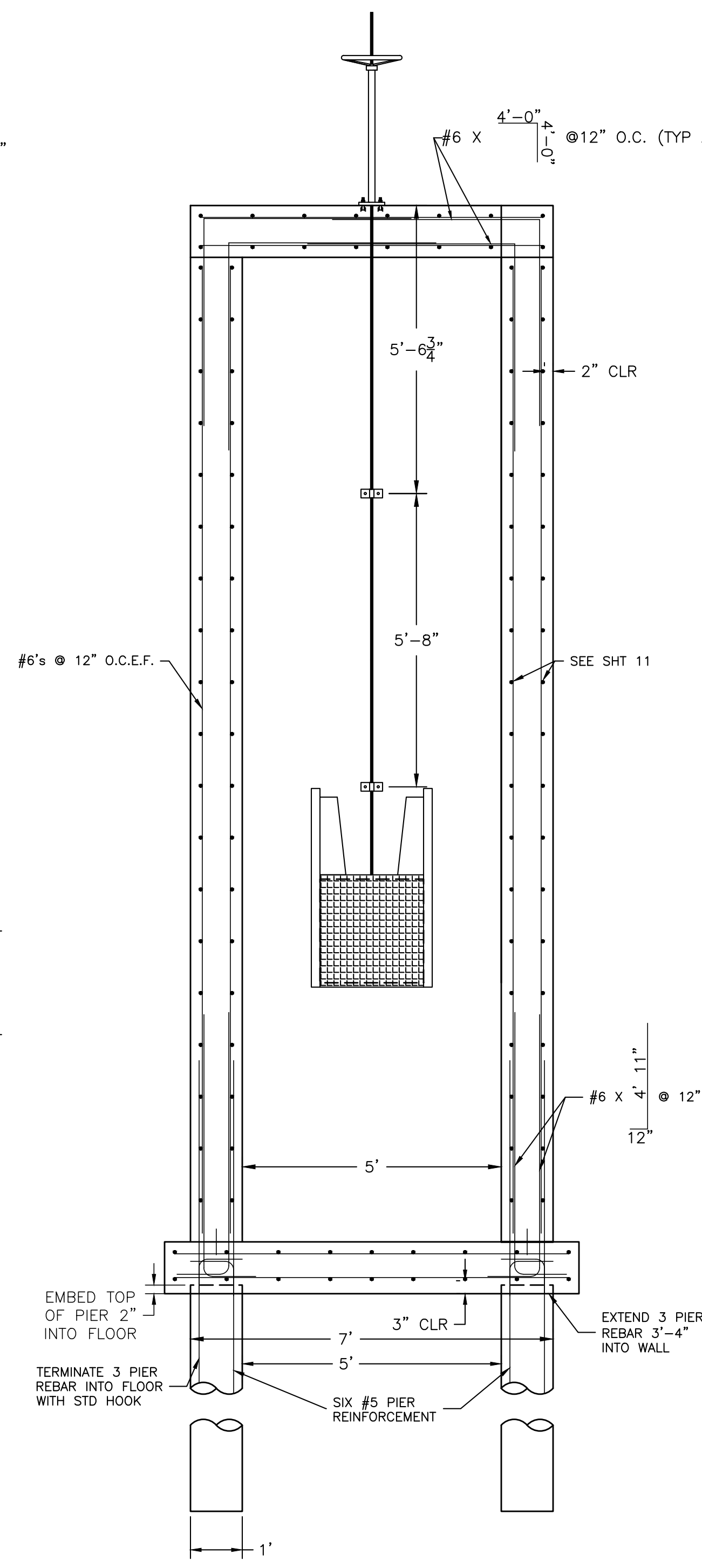
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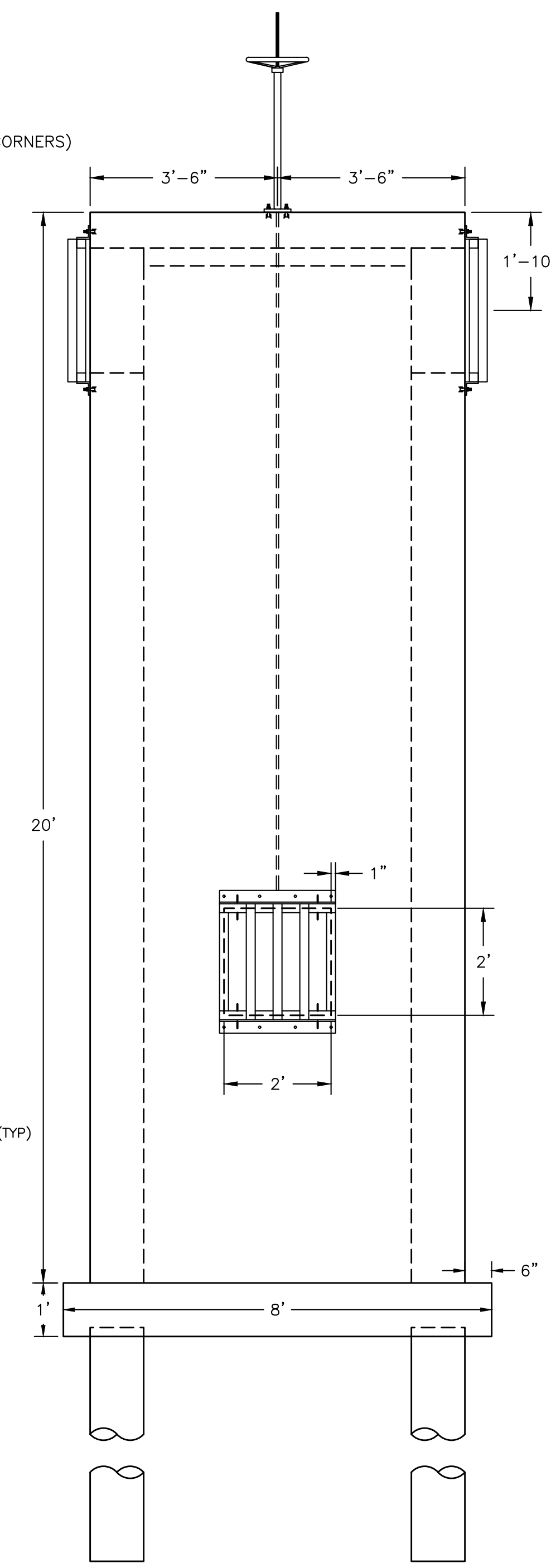
SECTION B-B
SCALE 1/2" = 1'



SECTION C-C
SCALE 1/2" = 1'



SECTION D-D
SCALE 1/2" = 1'



SECTION E-E
SCALE 1/2" = 1'

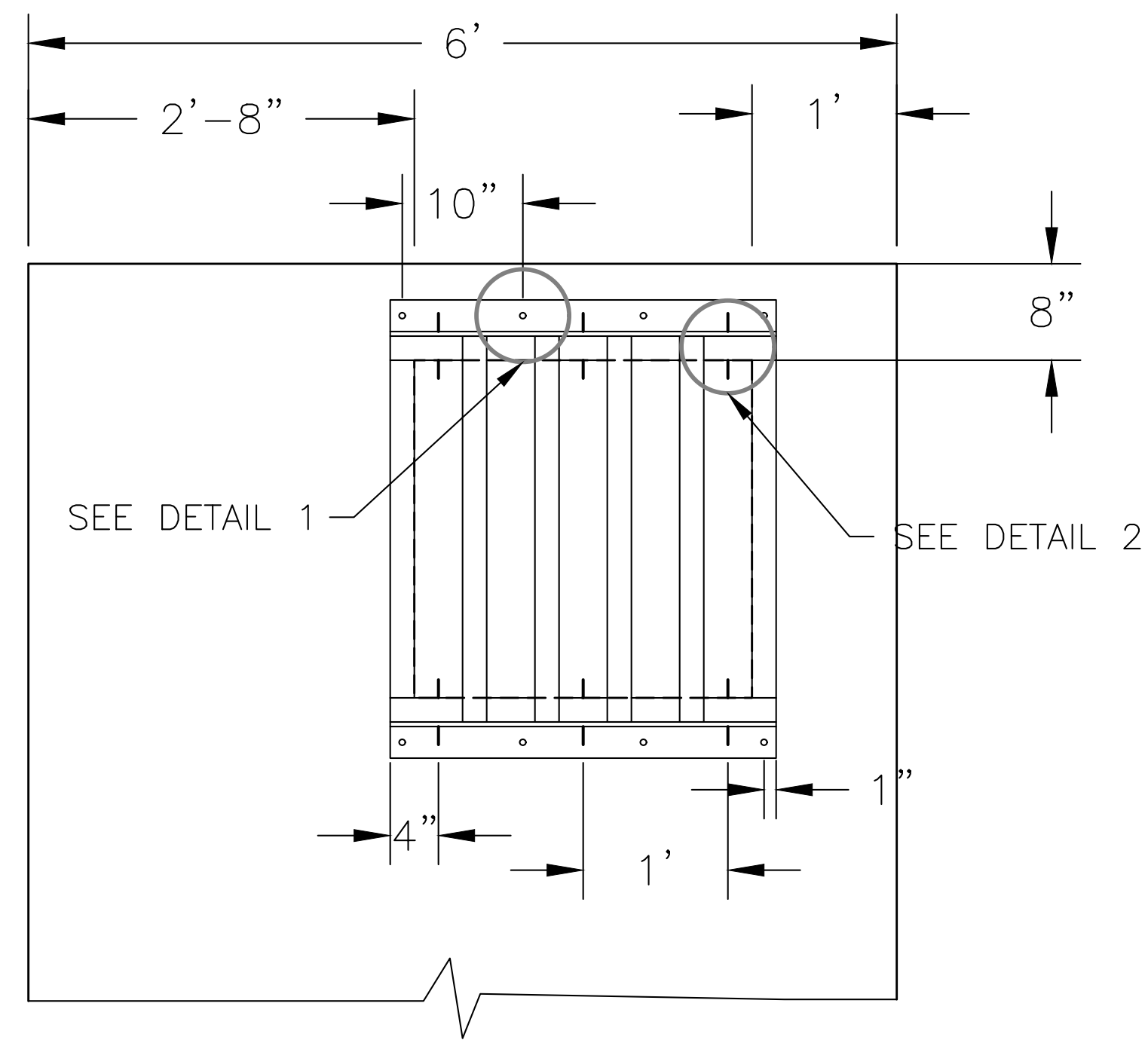
MINIMUM LAP SPLICE LENGTH AND STANDARD HOOK FOR HORIZONTAL AND VERTICAL BARS		
REBAR SIZE	MINIMUM LAP SPLICE LENGTH	STANDARD 90 DEGREE HOOK DIMENSION
#4	2'-8"	8"
#5	3-4"	10"
#6	4'-0"	12"

No	Date	By	Chk	Description

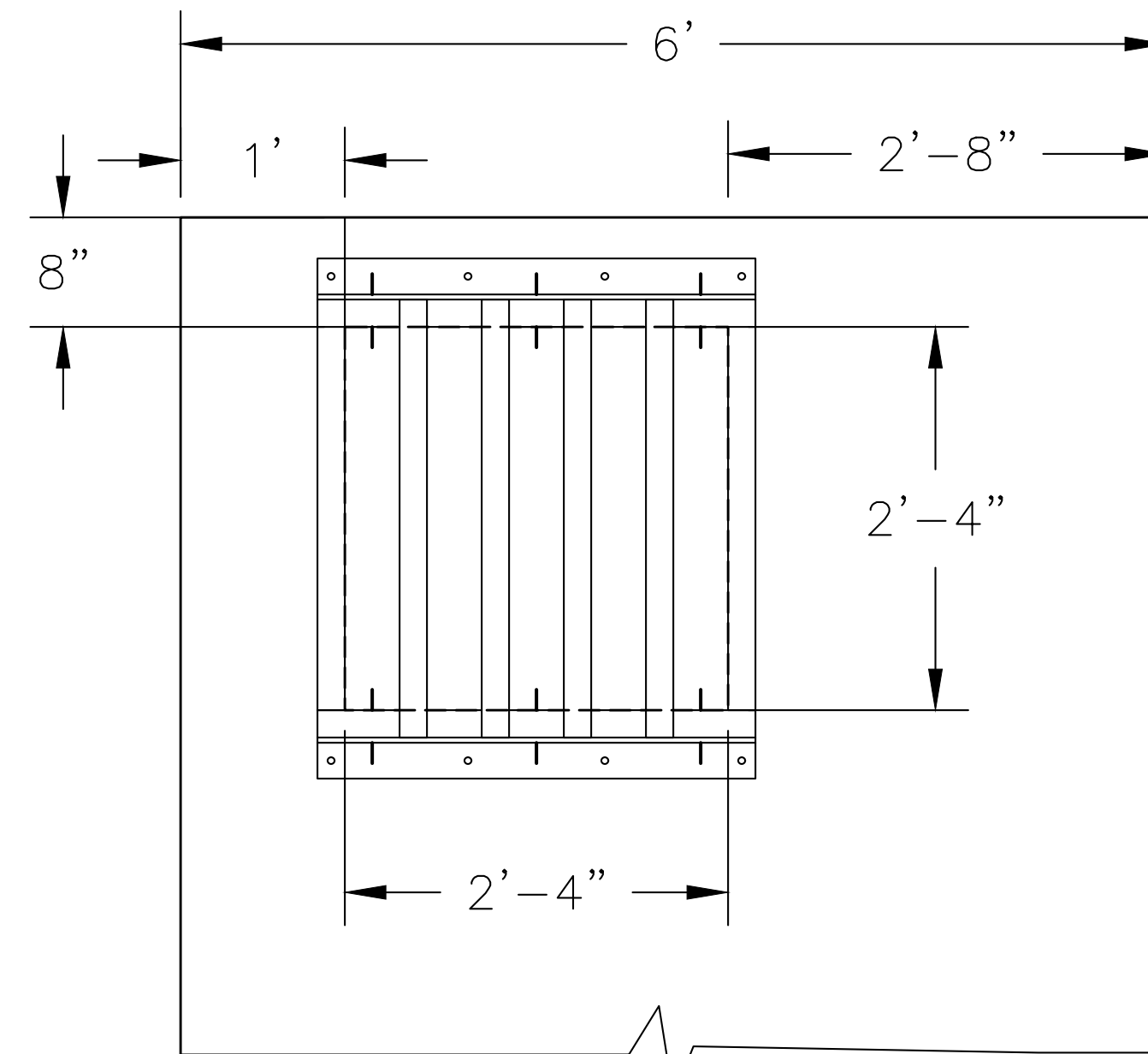
ISSUED FOR BID

Job #	20225
Date	7.1.21
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Designed By	KJS
Checked By	JCY
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Sheet:	Of:
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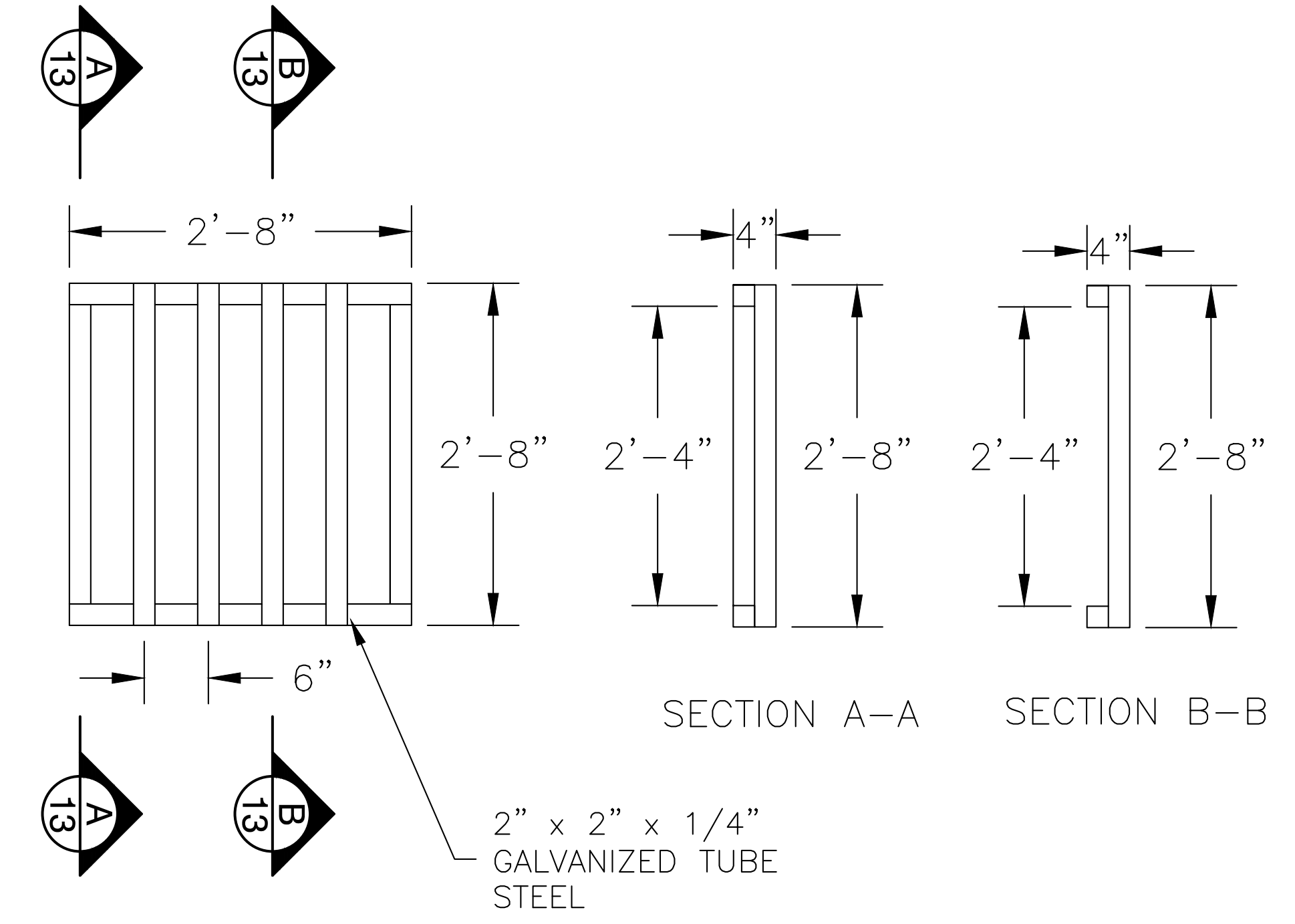
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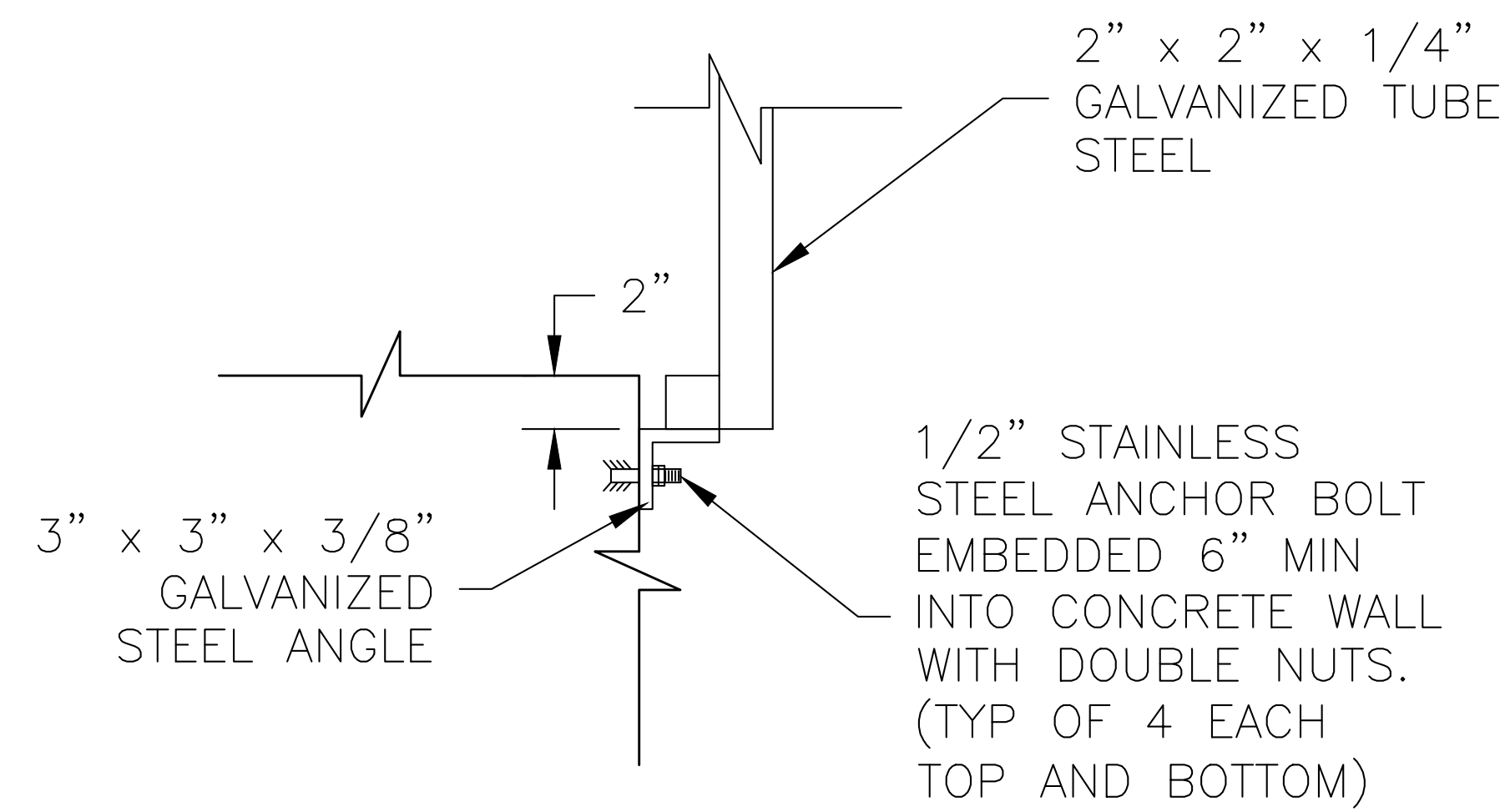
SOUTH WEIR DETAIL
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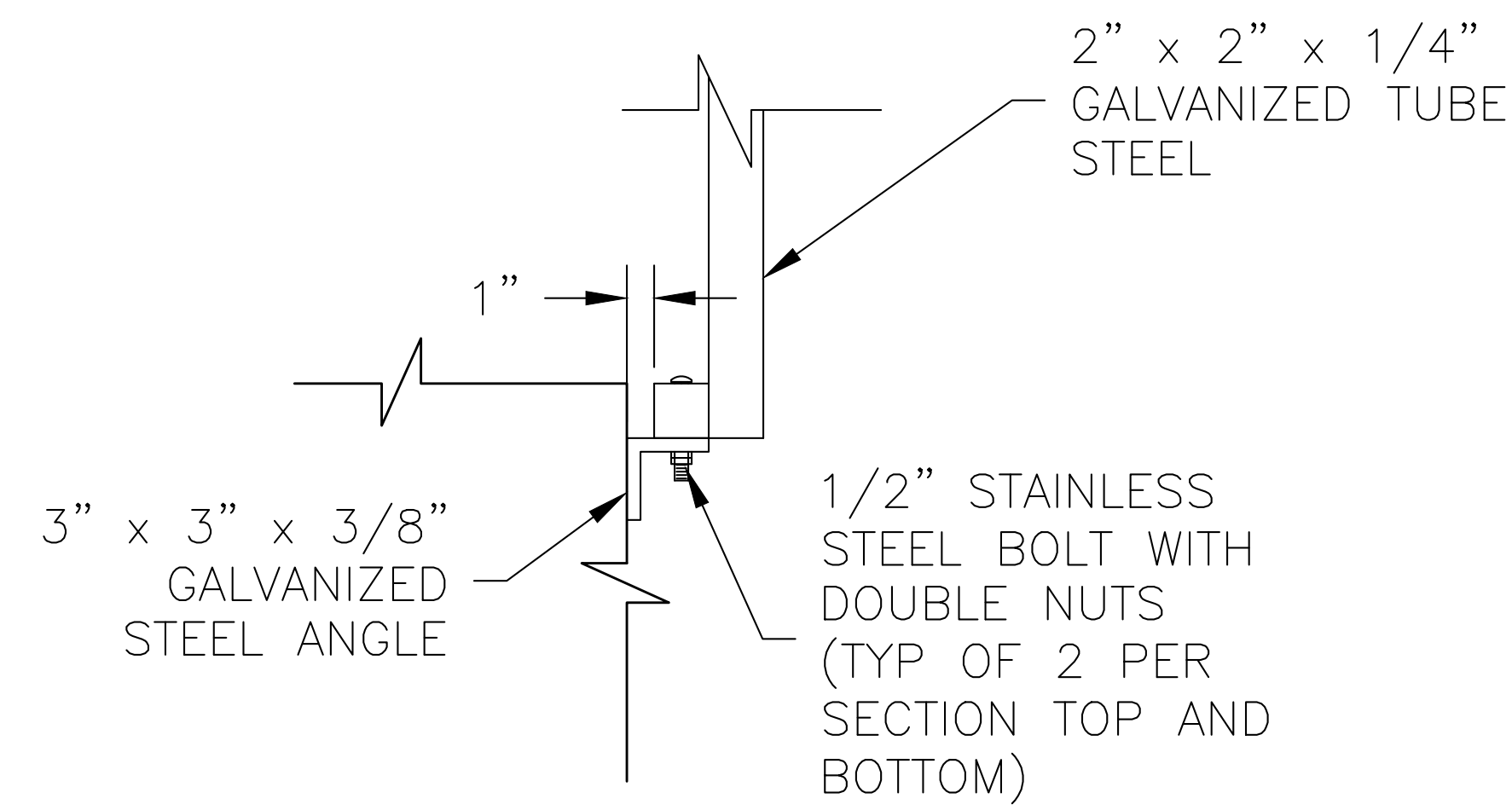
NORTH WEIR DETAIL
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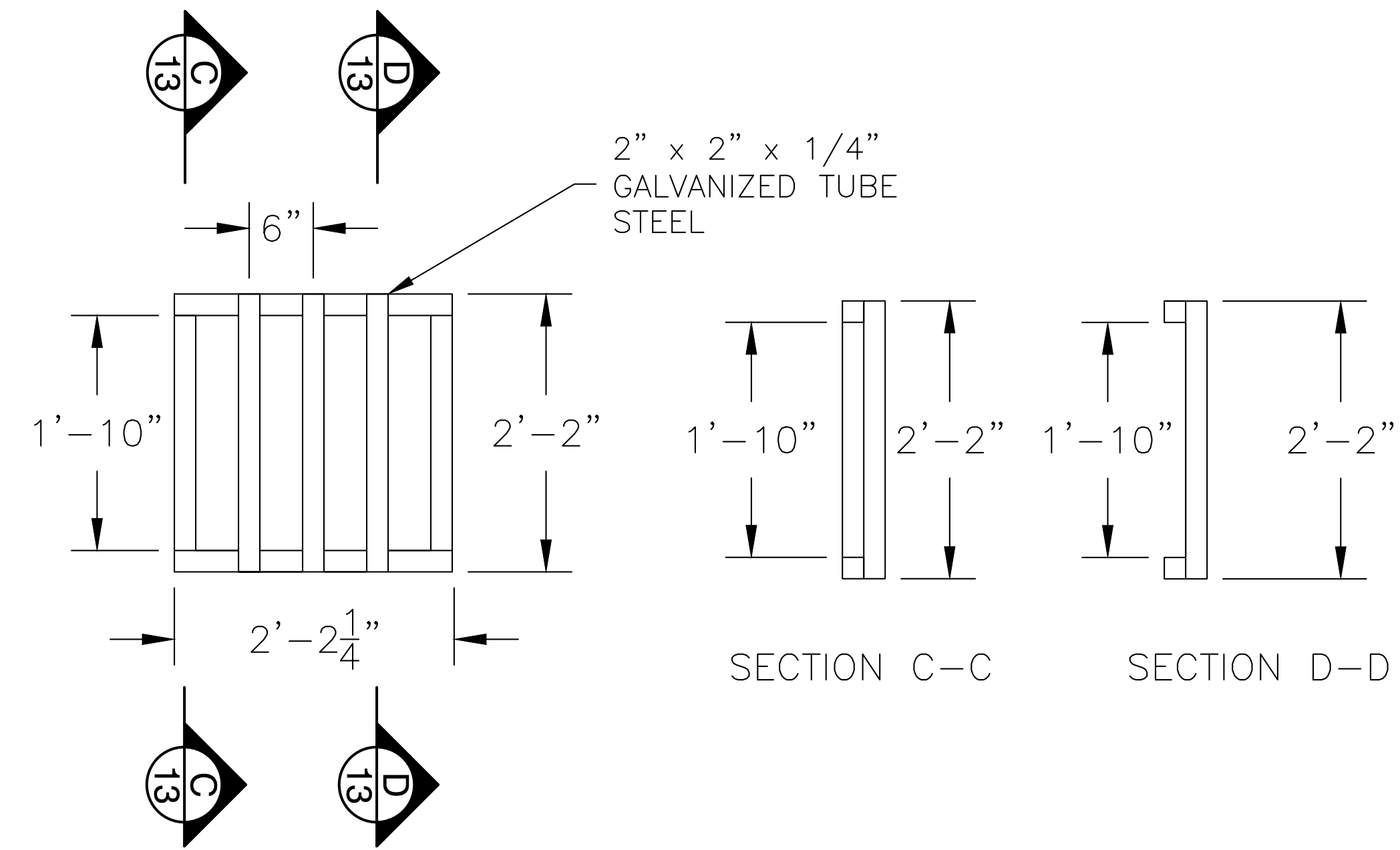
WEIR TRASH RACKS
SCALE 1" = 1'



DETAIL 1
NOT TO SCALE



DETAIL 2
NOT TO SCALE



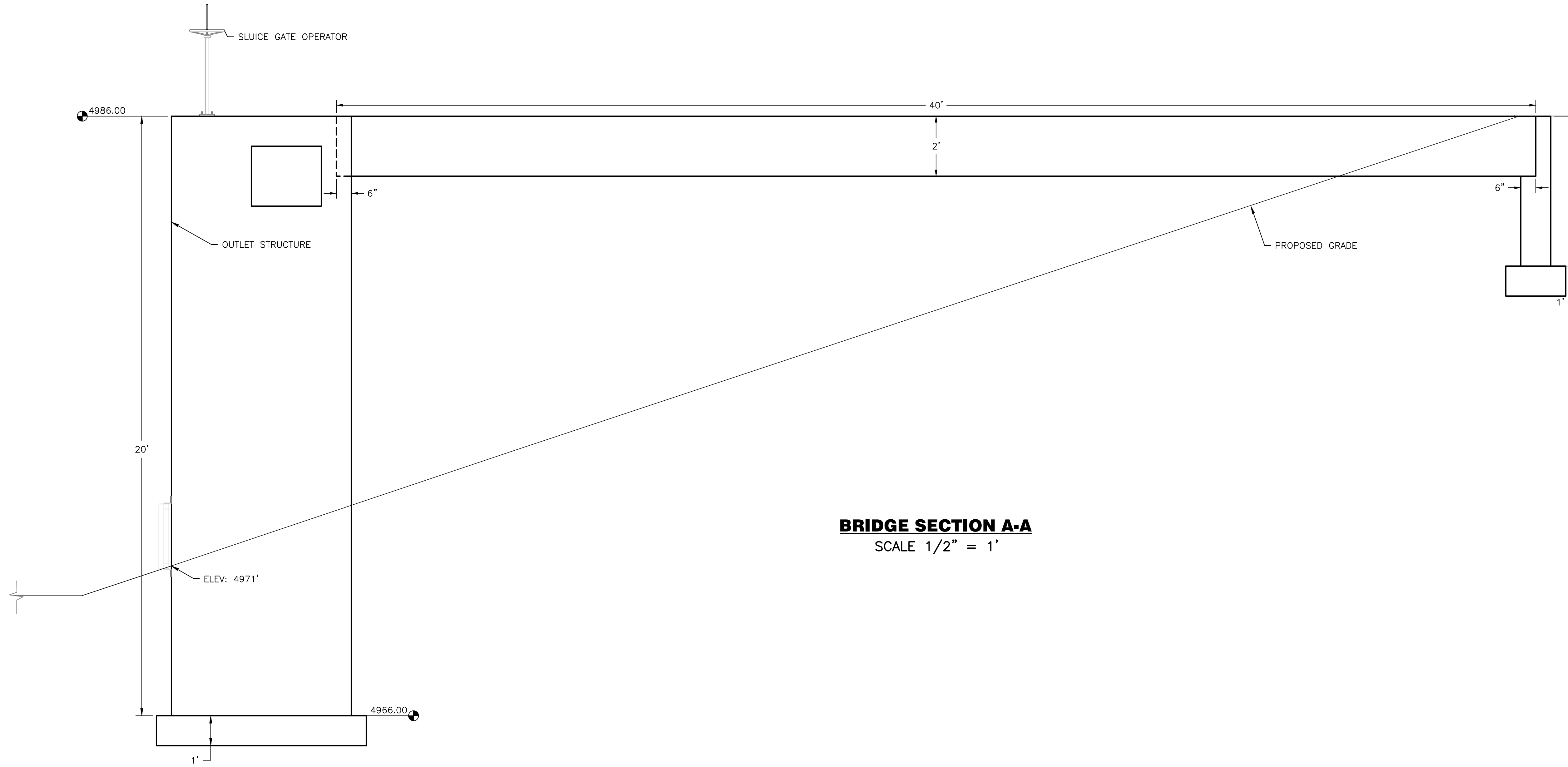
SLUICE GATE TRASH RACK
SCALE 1" = 1'

REVISIONS		Description
No	Date	By

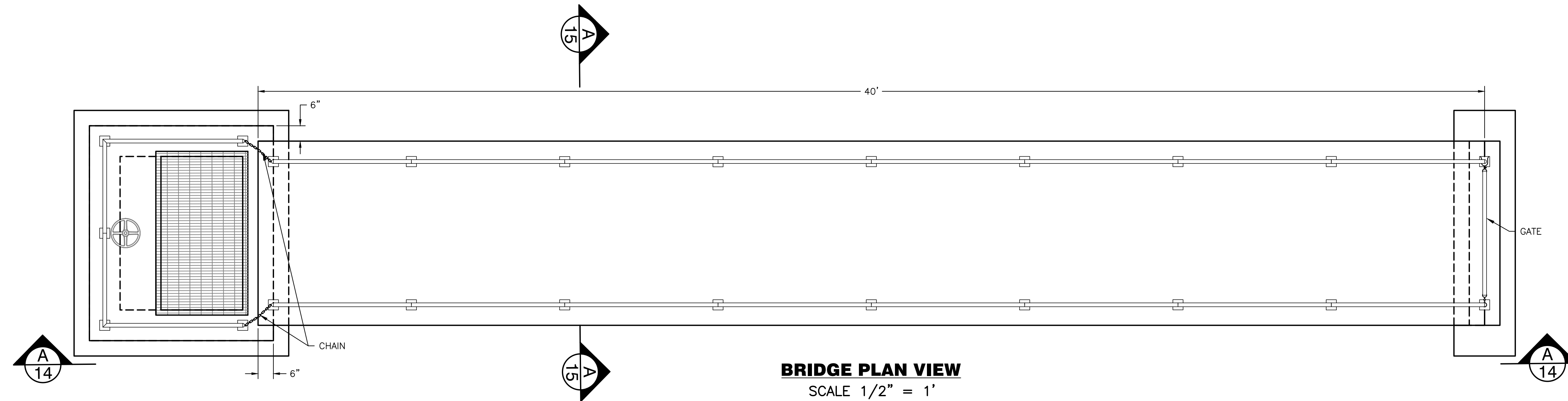
Job #	20225
Date	7.1.21
Drawn By	KJS
Designed By	KJS
Checked By	JCY
File	Outlet Tower Details.dwg
Scale	As Shown

ISSUED FOR BID

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BRIDGE SECTION A-A
SCALE 1/2" = 1'



BRIDGE PLAN VIEW
SCALE 1/2" = 1'

No.	Date	By	Chk	REVISIONS	
				Description	

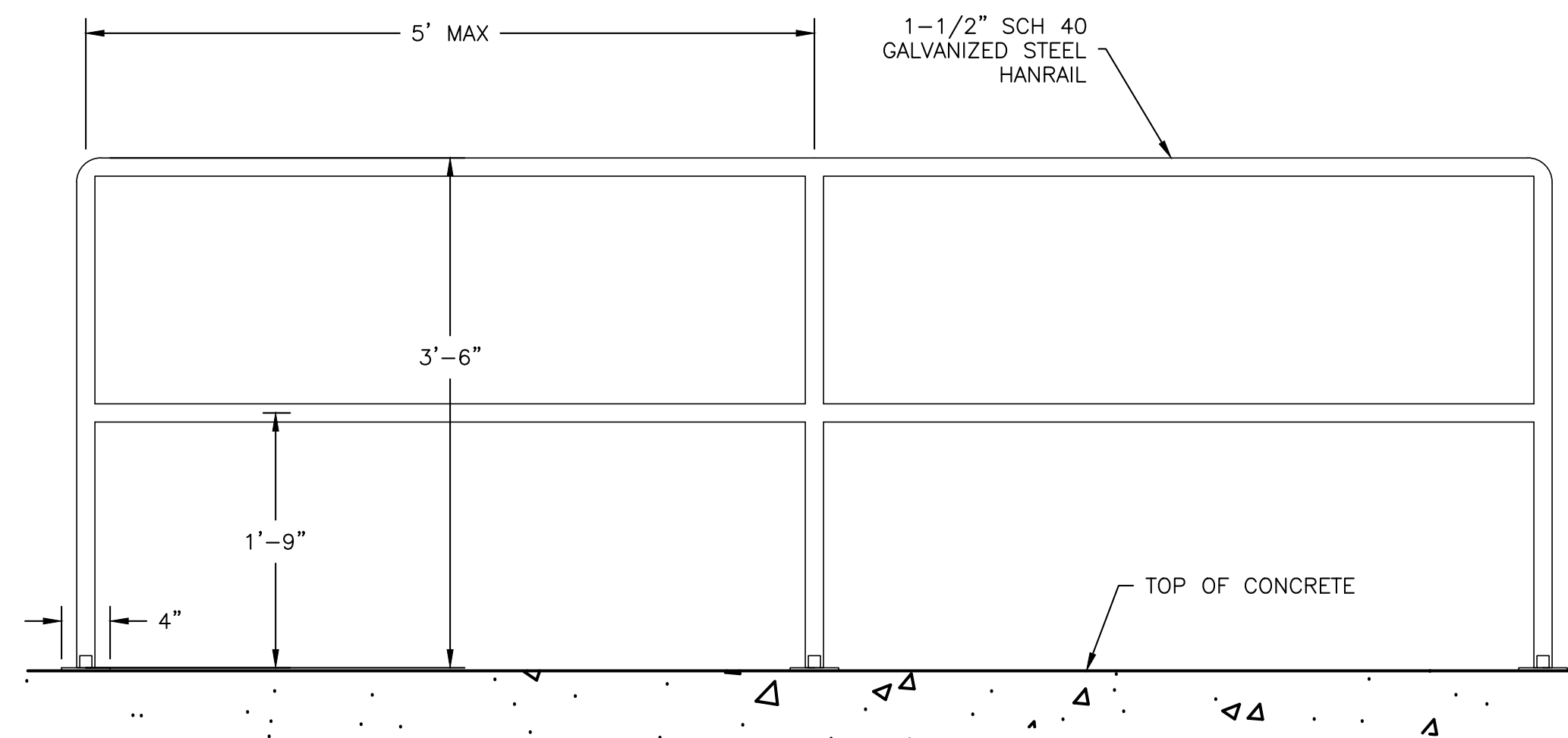
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Job #	20225
Date	7.1.21
Drawn By	KJS
Designed By	KJS
Checked By	JCY
File	JT-Johnstown Details
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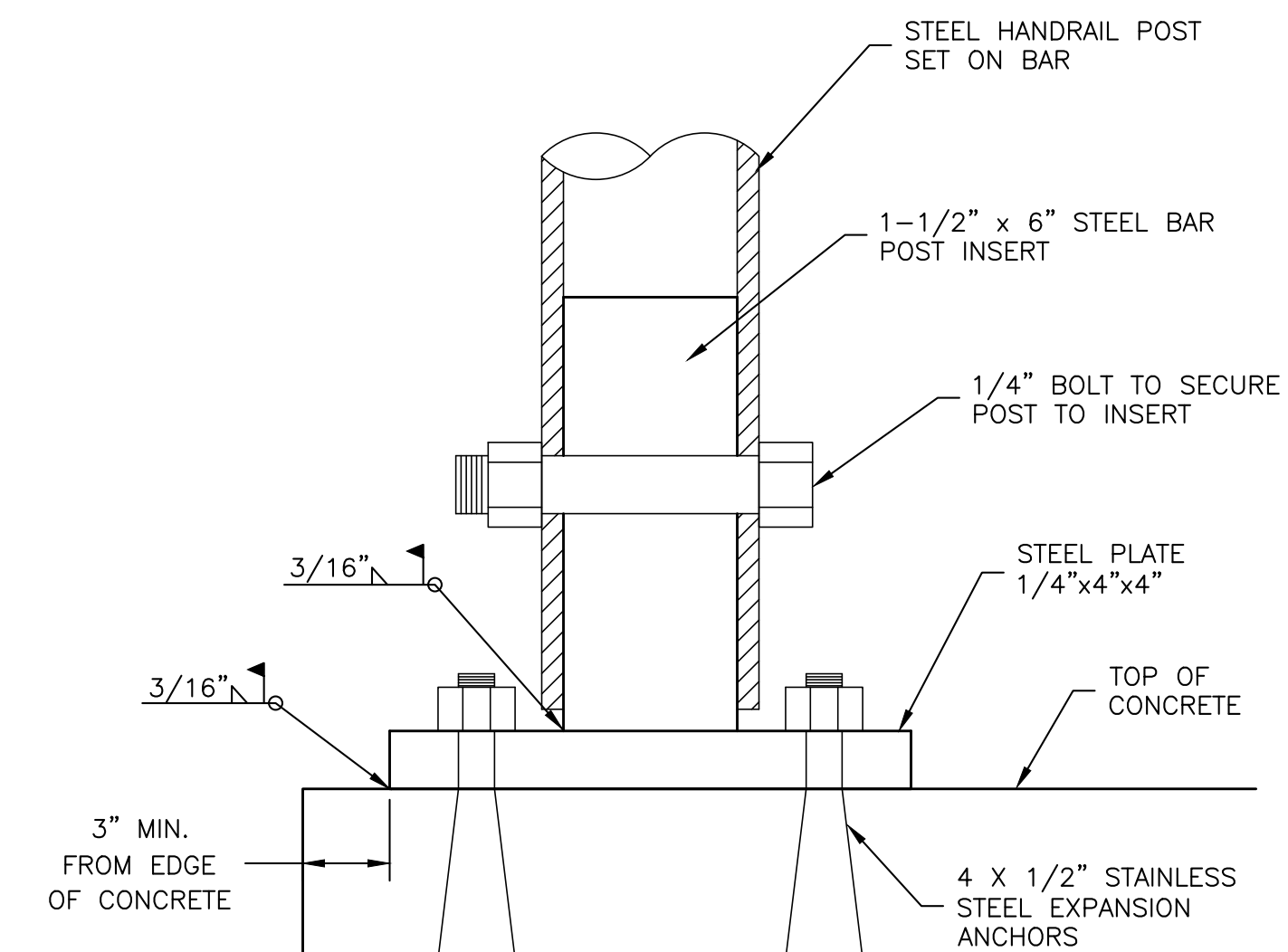
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Filing No. C-0625A

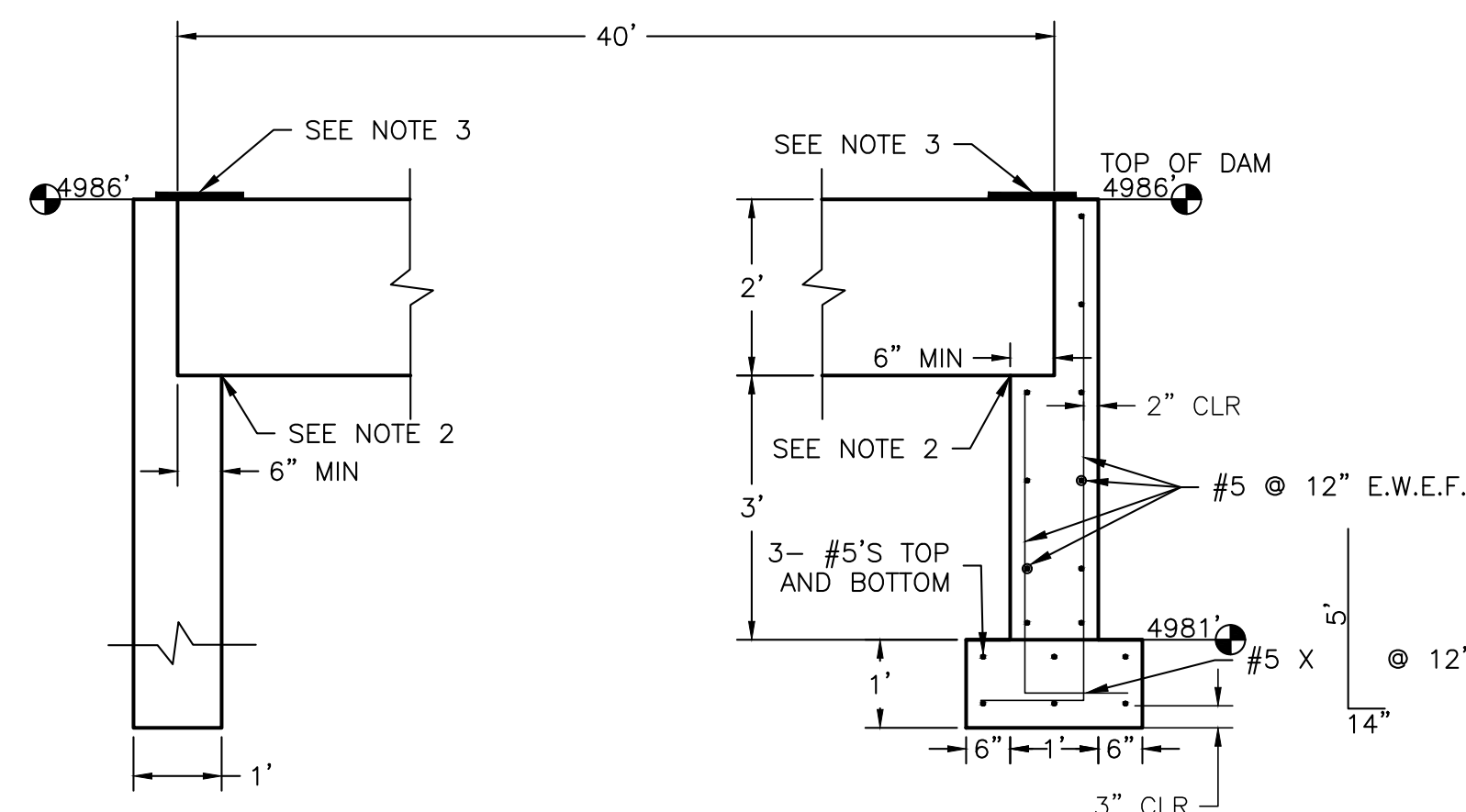
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TYPICAL HANDRAIL DETAIL
SCALE 1" = 1'

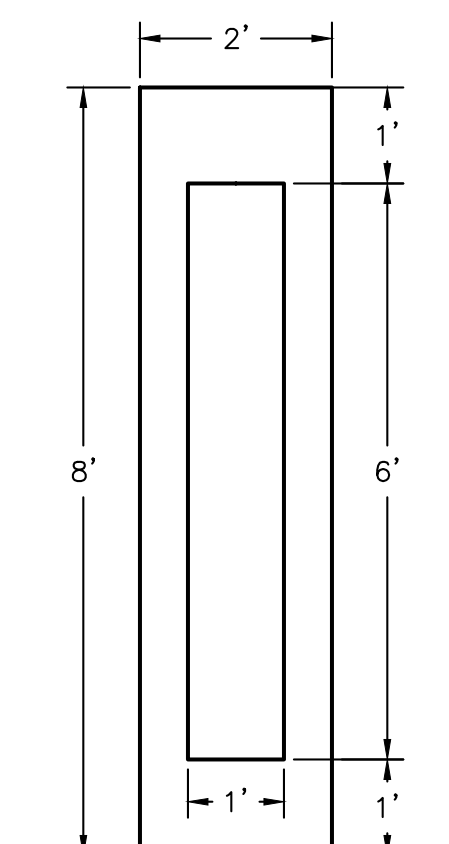


HANDRAIL POST DETAIL
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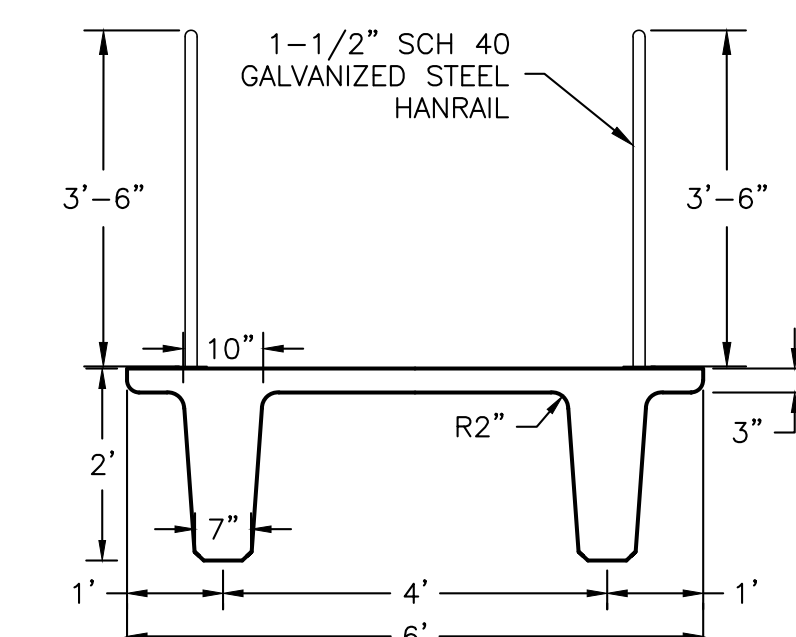


OUTLET TOWER

DAM FOOTER

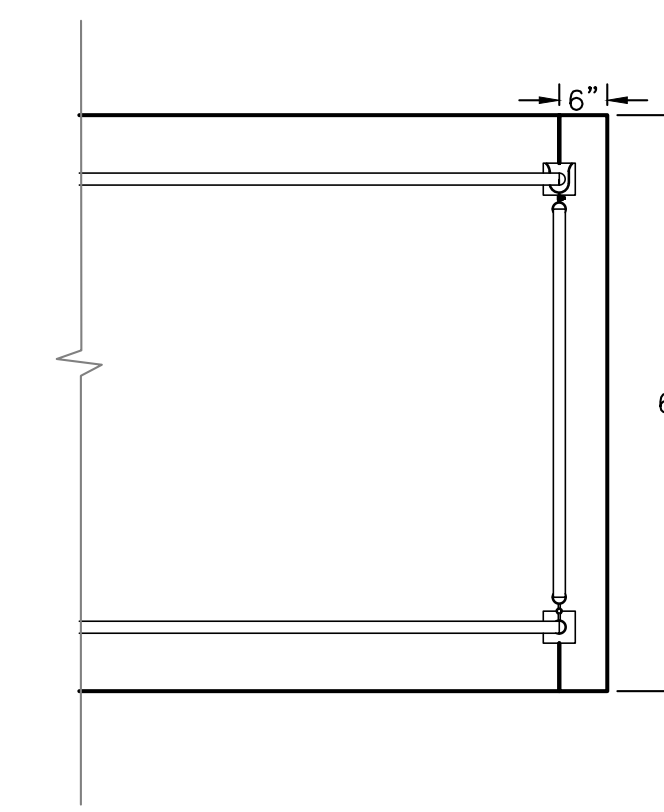


FOOTING PLAN



**SECTION A-A
DOUBLE TEE BRIDGE
GIRDER CATWALK DETAIL**

MAX STRESSING CAPACITY = 1240 k/stem
STANDARD STRAND = .6"Ø LOW RELAXATION



BRIDGE GATE DETAIL
SCALE 1/2" = 1'

- NOTE:
1. TWIN TEE TO BE DESIGNED WITH 50 PSF LIVE LOAD.
 2. TWIN TEE SUPPLIER TO DESIGN CONNECTIONS FOR ATTACHING TWIN TEE TO OUTLET TOWER.
 3. 12" X 6" X 1/4" ALUMINUM PLATE ATTACHED TO ONE SIDE WITH 6 COUNTERSINK EXPANSION ANCHORS 1/2" X 2" (TYP @ EACH JOINT).

SCALE 1/2" = 1'

No.	Date	By	Chk	Description

ISSUED FOR BID

Job #	20225
Date	7.1.21
Drawn By	KJS
Designed By	KJS
Checked By	JCY
File	JT-Johnstown-Details
Scale	As Shown
Sheet:	Of:

15 15

Filing No. C-0625A

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